Campaign

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Somme
1 July 1916
Tragedy and triumph

Andrew Robertshaw • Illustrated by Peter Dennis

ANDREW ROBERTSHAW is Director for Education at the National Army Museum. He has presented numerous programmes on the First World War for the BBC and Channel 4; he is currently working on 'Finding the Fallen' for the Discovery Channel. In 1997 he published *A Soldier's Life* (Heinemann/Penguin). He frequently lectures on battlefield archaeology and the First World War, and is Chair of 'No Man's Land', the European Group for First World War Archaeology. He lives in Surrey, UK.

PETER DENNIS was born in 1950. Inspired by contemporary magazines such as *Look and Learn*, he studied illustration at Liverpool Art College. Peter has since contributed to hundreds of books, predominantly on historical subjects. He is a keen wargamer and modelmaker.

Campaign • 169

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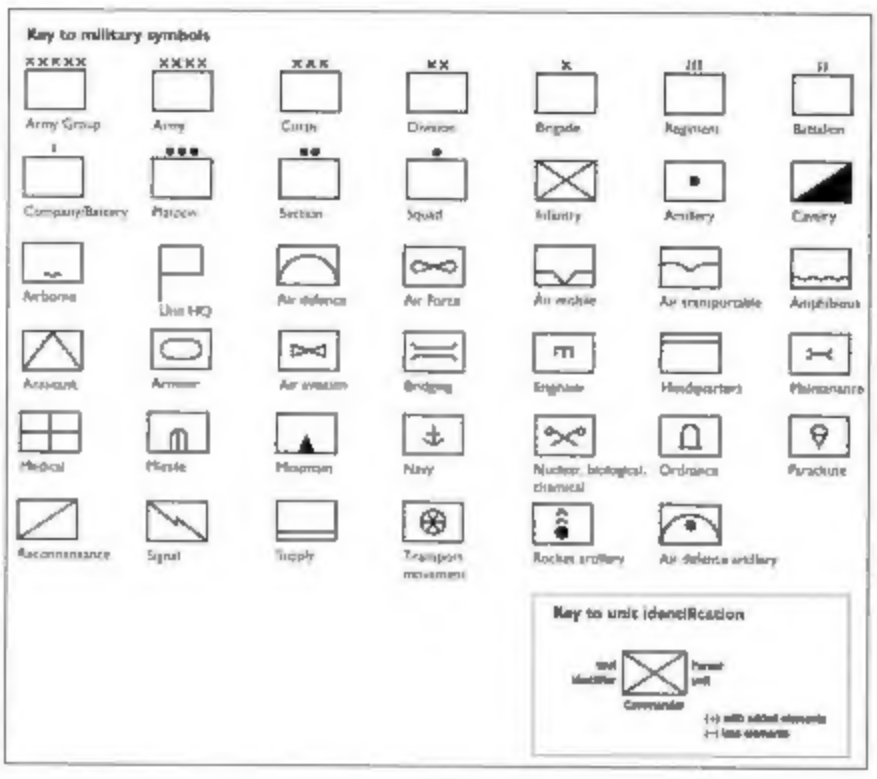

Author's dedication

To the unknown member of the King's Lancashire Regiment discovered by the No Man's Land team at Serre in October 2003. One of the fallen of 1 July 1916.

Author's acknowledgements

I wish to thank Alastair Fraser and Ralph Whitehead for all their help and advice with this book. If there are any factual errors they are entirely my own. I would also like to thank Michael Ball, my colleague at the National Army Museum, for making my strangled English readable. Also my wife and daughter for putting up with my fascination with the battle of the Somme.

Artist's note

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Peter Dennis, Fieldhead, The Park, Mansfield,
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CONTENTS

ORIGINS OF THE CAMPAIGN 7

Opening moves • Options to end trench stalemate
The failed offensives of 1915 • Plans for 1916 – towards the Somme
The place of the Somme in Allied strategy

CHRONOLOGY 13

1914 • 1915 • 1916 • 1917 • 1918

OPPOSING COMMANDERS 15

German commanders • British commanders • French commanders

OPPOSING FORCES 21

The German Army • The British Army • The French Army • Orders of battle

OPPOSING PLANS 31

German plans for defence on the Somme • The British Army's plan of attack
Preparing for Z Day – artillery, barbed wire and dugouts • French plans

1 JULY 1916 41

Third Army: Gommecourt • Serre and Beaumont Hamel • Thiepval
Ovillers and La Boisselle • Fricourt and Mametz • Montauban
The French sector • South of the Somme • The German experience
The situation at the end of the day

AFTERMATH 78

A military disaster? • Lessons of the Somme

THE BATTLEFIELD TODAY 88

FURTHER READING 94

INDEX 95

Reservistenlied 1914

Nun geht's voran in Reih und Glied,
Wir singen uns ein Wanderlied,
Im Takte fest, im Herzen fest,
Heraus aus eurem weichen Nest.
Einer wie der andre.

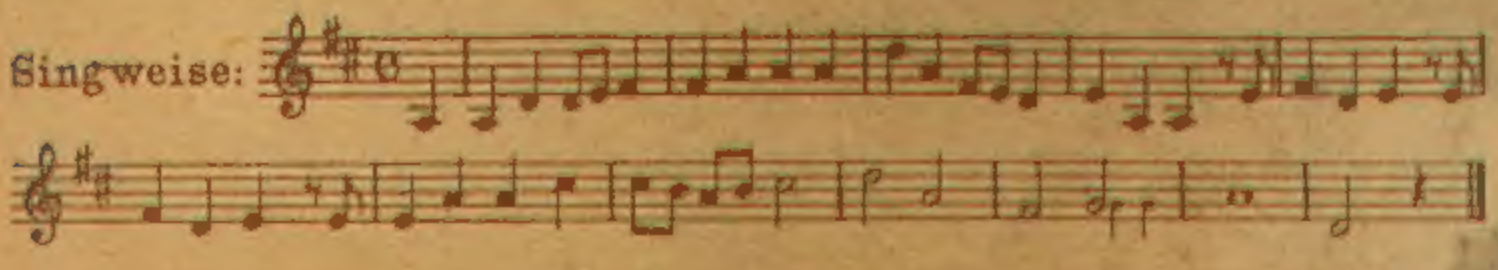
Der gleiche Rock, das gleiche Recht,
Und Rottennachbarn Herr und Knecht,
Derselbe Lohn, dasselbe Brot,
Dasselbe Bett in Schlaf und Tod.
Einer wie der andre.

Die Ernte steht auf hohem Halm,
Wir hinten bald im Pulverqualm;
Reserve jung, frisch auf zum Sprung,
Hurrah marschmarsch, zur Wanderung.
Einer wie der andre.

So klingt die Sense durch das Korn,
Wo mäht sie, hinten oder vorn?
Kehr dich nicht dran, Reservemann,
Wie's Gott gefällt, so kommt man dran.
Einer oder der andre.

So geht's voran in Reih und Glied,
So singen wir das Wanderlied.
Nun tut das Best' und packt sie fest,
Wer weiß, bald kehrn wir Heim zum Nest.
Einer wie der andre.

Singweise:



Neue Flugblätter Nr. 51. Wort und Weise von O.-Trüstus.

ORIGINS OF THE CAMPAIGN

The Somme is a river in northern France that has given its name to a region and a battle. Of all the events of the First World War it is arguable that only Passchendaele comes close to the Somme's infamy. The Somme still has the power to evoke strong attitudes and emotions in a generation that has seen the demise of the final survivors of the events of 1916. There can be few people who have not heard of the battle of the Somme and most associate it with the events of a single day, 1 July 1916.

Whilst Verdun stands for sacrifice and heroism for a French audience, the Somme is used as a demonstration of British military failure and stupidity. For a public largely unaware of the reasons for the battle, or even where it was fought, it is the myth of the slaughter of 60,000 men in a single day that has shaped popular perceptions of the entire war. The 1st of July is held to be the 'proof' of the futility of British strategy and the failure of incompetent British generals, chiefly Sir Douglas Haig, to adapt to the new technology that confronted them in the deadlock of trench warfare on the Western Front. The fact that this battle was not called off after the failures of the first day but instead dragged on for four more months of mud and blood is seen as compounding the errors of the opening day. This 'futile' waste of men is perceived by many as a clear demonstration of the lack of imagination displayed by the British generals, which is so obvious to subsequent generations. But the facts that form the popular understanding of the battle do not bear close scrutiny. A great deal of what is taken as the context for the battle of the Somme is a combination of myth and partial truth with a good mixture of hindsight. To be able to understand the military and political factors that led to the Somme battle it is necessary to consider the war on all fronts since 1914.

OPENING MOVES

LEFT **A German patriotic postcard of 1914. The soldiers are shown with sprays of celebratory white flowers attached to their helmets as they pass through an undamaged town. The reality of warfare in France and Belgium would prove to be a very different experience, and by the summer of 1916 such sentiments were being challenged by the harsh reality of life at the front. (Author's collection)**

The First World War in the West began early in August 1914 with the German invasion of Belgium, part of the Schlieffen Plan. This plan was designed to avoid a prolonged war on two fronts by defeating France before the enemy in the East, Russia, could mobilize. It called for the rapid capture of Paris, the partial or potentially complete destruction of French military forces and a switch of the maximum German force then available to halt the Russian steamroller. The British Expeditionary Force (BEF) was mobilized after Great Britain declared war on Germany – this followed the German violation of Belgian neutrality, which Britain was bound by treaty to guarantee. After signing the *Entente Cordiale* in 1904, the British had undertaken some pre-war staff planning with the French and had loose agreements about both military and naval

co-operation in the event of war. However, the BEF was very small, fewer than 180,000 men, compared with the millions mobilized by the major powers, and did not feature in either French or German plans. It was, however, unique in that it was an all-volunteer force and had recent modern military campaign experience, in the Anglo-Boer War (1899–1902). Following the failures so apparent in that conflict it had been re-armed and re-equipped. Although the BEF was successful at the battles of Mons and Le Cateau in inflicting heavy casualties on the advancing German forces, it was forced to retreat in co-operation with French forces on its flanks. Later the BEF played a minor, although important, role in the successful battle of the Marne. In this 'miracle' the German advance was halted and then pushed back to the line of the River Aisne. It was here, on a line running south to the Swiss border, that the German Army began to dig in, constructing a series of field fortifications that would later develop into the complex trench system that became the Western Front. In late September 1914 an attempt by both sides to outflank these recently created field defences led to the so-called 'race to the sea'. This was a series of unsuccessful out-flanking manoeuvres by both sides, which eventually saw the move of the BEF to the Franco-Belgian border and Ypres, the only major Belgian town in Allied hands. Between 19 and 22 October 1914, in the fierce fighting of what became the first battle of Ypres, British, Belgian and French forces foiled the German attempt to seize the town and potentially the Channel ports so vital to the BEF. Casualties in the BEF were small in comparison with those of France and Belgium, but the loss of so many trained soldiers, who were the potential officer corps and instructors of the expanded volunteer army of 1916, was to have profound implications for the future.

General Sir Douglas Haig became commander-in-chief of the BEF in December 1915 when he replaced Sir John French. He would bear the responsibility for sending the men of the British Army over the top on 1 July 1916. The decision to launch the attack was, however, the result of a global strategy in which the battle of the Somme was one of a number of offensives planned for 1916. Most men of the BEF believed their cause 'just' and the loss of life acceptable if it led to victory. (IWM Q23659)

OPTIONS TO END TRENCH STALEMATE

With the phase of open warfare now a stalemate and with the front extended to the North Sea, both sides established themselves in two trench systems separated by what became known as no man's land. For the first time in the campaign it had become clear that there were no options for outflanking the defences of the Western Front. Unless warfare elsewhere in Europe could offer an alternative route to victory (the 'Eastern' approach, which led to the campaign at Gallipoli and the Salonika expedition), the trench deadlock of the Western Front would have to be broken in battle. If this was not achieved the new frontiers of France and Belgium would become the status quo until a negotiated settlement was achieved by the politicians. What was apparent to the protagonists at the time of this phase of trench warfare was that both sides had totally different views of the function of the trenches.

For the Germans, the trenches were essentially defensive, dug on the most militarily advantageous terrain with the object of holding the maximum territory gained from France and Belgium with the minimum forces. These positions allowed troops to be sent to confront and ultimately defeat the Russians, while holding on to Allied territory that could be exploited economically, used as a position from which to launch an offensive in the West, or provide a bargaining counter in any

A German soldier takes shelter in the remains of a shallow trench alongside the remains of a partially buried French opponent. The newly issued steel helmet, first used at Verdun, together with the wearing of puttees instead of the earlier jack boots indicates the adaptations to the new style of warfare. (IWM, Q23760)

future peace negotiations. For the Allied commanders, including those of the BEF, the trenches were viewed as a means of holding the line temporarily with the intention of launching attacks to push the invader off the ground he had gained in the opening months of the war. Unlike the commanders of the German Army, who took their orders from the Kaiser, the Allied commanders were working under the direction of democratically elected politicians who largely left the methods to the military leaders, but who ultimately directed the war effort. It must be remembered that almost all of Belgium and a considerable proportion of French territory were under foreign occupation. The imperative to recover occupied territory compelled Allied commanders to launch attacks, while their opponents could choose when and where they would attack and only did so when clear advantage was offered. The Allied attacks of 1915 offer examples of this desire, both to recapture lost ground and, if possible, to open the way for an all-out offensive that would end the war. In May 1915 the French launched the first of two battles of Artois. Part of their plan was an attack to capture Vimy Ridge, which dominated the economically vital Douai Plain, whose mines and factories were being utilized by the German military. This attack gained some ground, but failed in the ultimate objective of capturing the Ridge. The following month, further to the south, the French launched the battle of Hebuterne that pushed the German Army back from a number of positions on what became in the following year the northern sector of the Somme battlefield.

THE FAILED OFFENSIVES OF 1915

By the spring of 1915 the BEF was holding an increasing share of the line as new divisions arrived, but the force under Sir John French was

still very much the junior partner to the French Army under the command of Maréchal (Marshal) Joffre. The resistance of the BEF during the German chlorine gas attack that heralded the second battle of Ypres (22 April–25 May) was, however, a demonstration of the expanding importance of the British in the Allied coalition. Despite the slow arrival of newly raised divisions as well as the commitment made by the British to Gallipoli and other 'Eastern' plans, the BEF was in a position to go over to the offensive by the spring of 1915. The battles of Neuve Chapelle (10–13 March) and Loos (25 September–8 October) demonstrated an increasing military commitment to the Allied war effort and an understanding of the techniques required to assault an entrenched enemy. These techniques included an increased use of heavy artillery, methods of wire cutting, the use of aircraft (specifically aerial photography) and ultimately, at Loos, the offensive use of poison gas. Despite high expectations, not even the sophisticated application of heavy artillery, the development of the barrage, or the use of smoke and gas broke the German trench system – there were occasional opportunities but enemy reinforcements were always able to seal off any potential breakthrough. In each of these failed offensives the BEF incurred further casualties among the diminishing pool of well-trained regulars, volunteers and reservists. This loss of manpower and lack of success had not gone unnoticed by British politicians and one of the organizational casualties of late 1915 was Field Marshal Sir John French, who was replaced as commander-in-chief of the BEF by General Sir Douglas Haig on 19 December.

PLANS FOR 1916 – TOWARDS THE SOMME

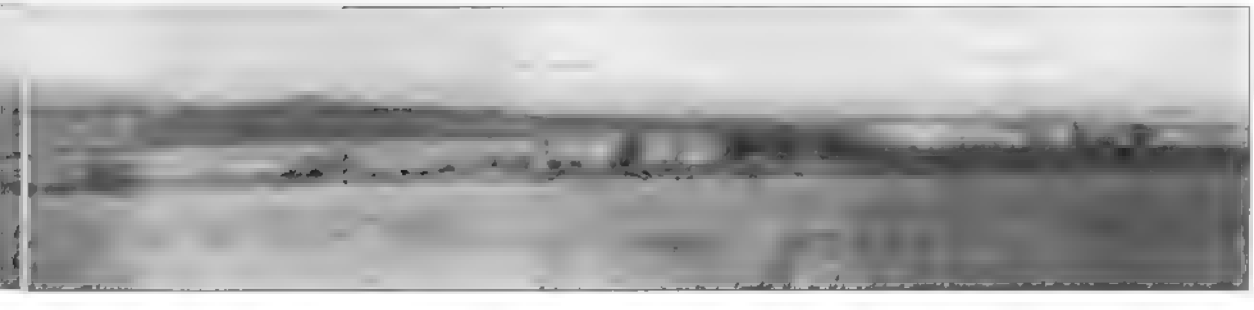
Although there is no doubt that Haig was an ambitious officer who had fought hard for supreme command of the BEF, his new position carried with it a number of problems. The instructions sent by Kitchener, Secretary of State for War, informed him that although his command was independent he would 'in no case come under the orders of any Allied general further than the necessary co-operation with our Allies', but that 'the closest co-operation between the French and British as a united army must be the governing policy'. The importance of this co-operation would soon become apparent. On paper at least, Haig had 38 infantry and five cavalry divisions organized into 12 corps at the beginning of 1916, and these divisions could be expected to increase with the arrival of the 'New Army' formations and the abandonment of

A section from a panoramic photograph taken by the Royal Engineers of Fourth Army on 12 April 1916, looking from near La Signy farm towards the German defences in front of Serre. Note the limited destruction, with trees, hedges and vegetation still apparent. The trenches of both sides show up as white spoil. (Author's collection)

the unsuccessful Gallipoli campaign. By July 1916 the BEF would consist of 18 corps of 54 divisions. However, on 1 January 1916 the French Army fielded 95 divisions and the Belgian Army six divisions. With this expanding force at his disposal it was clear that Maréchal Joffre, the French commander, would call for a greater British contribution to the war. Throughout the early part of 1916 the BEF took over a greater share of the front extending down to the Somme, but with critical areas close to Ypres still in French hands. At the Chantilly Conference on 29 December 1915, Haig met Joffre and the French prime minister, subsequent to which he received a letter proposing a Franco-British offensive on a 60-mile (100km) front either side of the Somme, where the two armies now met. This proposal was later amended to a less ambitious plan in which the BEF would engage in a preliminary attack on the Somme in April, prior to subsequent French assaults that would take advantage of the resulting diminution of German reserves and morale. The plan was then changed in February to include a feint by the BEF near Ypres, the reintroduction of the Franco-British plan and co-operation with a French corps north of the Somme. The attack would now be made around 1 July. Plans were prepared for the British to attack on a frontage of about 20,000 yards (18,280m) in an area that had seen little fighting over the previous 20 months of the war. This area was not one chosen by Haig and throughout the protracted negotiations between the Allied commanders he pursued a policy of promoting the area close to Ypres as offering greater strategic advantages, especially control of the German railway network and the strategically important Belgian ports used by their submarines. It was also closer to the BEF's major supply ports and reduced the considerable logistical problems. The Somme, on the contrary, had no strategic objectives such as industrial areas, transport centres or large cities, and its only advantage was that it was a place where a joint offensive could be launched. The logistical difficulties of launching an offensive in the area were considerable, primarily that without massive engineering work there was not even enough water available for the forces involved.

THE PLACE OF THE SOMME IN ALLIED STRATEGY

The 'Big Push' would be a 'wearing out fight' and this policy was agreed by the premiers of Britain and France at a joint conference held in Paris on 27 March 1916. Joffre summed up the agreement by saying that 'we



have to destroy the morale of the German Army and nation' by means of 'one policy, one army and one front'. However, he was aware that Allied plans called for a summer offensive by Russian forces against the Austro-Hungarian forces in the East, combined with pressure on the Italian front. These simultaneous operations would increase the pressure on the Central Powers and reduce their ability to switch reinforcements from one front to another. In mid-April Kitchener was able to tell Haig that the British Cabinet had agreed that the war could only be ended by fighting and that it was now policy that the BEF was committed to an offensive on the Western Front. By this time, however, events had overtaken the political decision-making process and the German offensive against the French fortress town of Verdun on 21 February 1916 had created far-reaching consequences for the future joint attack on the Somme.

Historians cannot agree why Eric von Falkenhayn, Chief of the German General Staff, launched the Verdun battle, one argument being that it was intended to 'bleed the French Army white' and bring it to total defeat. A second is that Falkenhayn was a realist who saw that total military victory was beyond the grasp of Germany and the Central Powers, but that a battle that inflicted heavy casualties on the French would bring their government to the negotiating table, thus splitting the Allied coalition. Whatever the reasons for the German offensive, one direct consequence was to draw French troops into the Verdun battle in increasing numbers as the retention of the town became a symbolic act sustained by a single road, later named 'La Voie Sacrée' (the Sacred Road). With so many troops involved in this combat it was clear that fewer would be available for the Somme. This situation increased the importance placed upon the future Somme offensive as a means of taking pressure off Verdun. By the time the British government had adopted the joint offensive as official policy, it was plain that the operation could do little more than direct German attention away from the Verdun battle. Whatever the objectives it was now inevitable that there had to be a major offensive by the BEF, with a much-reduced French contribution. It was left to the British commander-in-chief to make the most of the resources available to him.

CHRONOLOGY

1914

28 June	Assassination of Franz Ferdinand in Sarajevo
28 July	Austria declares war on Serbia
29 July	Russia mobilizes.
1 August	Germany declares war on Russia.
3 August	German invasion of Belgium.
4 August	Following German invasion of Belgium, Britain enters the war
4–19 August	BEF mobilized
23–24 August	BEF involved in the battle of Mons
26 August	Battle of Le Cateau – successful rearguard action by BEF II Corps
7–10 September	Battle of the Marne – German advance halted
12–15 September	Battle of the Aisne – German Army goes onto the defensive
4–10 October	Unsuccessful defence of Antwerp by Royal Naval Division.
19–22 October	First battle of Ypres – British, French and Belgian forces prevent Ypres from being captured. Western Front stabilized

1915

10–13 March	Battle of Neuve Chapelle – BEF's first offensive
22 April–25th May	Second battle of Ypres – first German use of chlorine gas.
7 May	Liner the *Lusitania* sunk by a German submarine off Ireland
25 September–8 October	Battle of Loos – first use of gas by the BEF
19 December	General Sir Douglas Haig takes over as commander-in-chief of the BEF from Field Marshal Sir John French
29 December	Haig attends conference to discuss Anglo-French offensive on a 60-mile (100km) front on the Somme

1916

24 January	First Military Service Bill passed by the House of Commons (conscription of unmarried men aged 18 to 41)
21 February	Battle of Verdun begins.
12 March	Allied military conference at Chantilly regarding summer offensive
14 April	Lord Kitchener informs Haig that the British Cabinet has agreed that the war can only be ended in battle
1 May	Général Pétain receives command of the group of French Armies of the Centre. Général Nivelle takes command of French Second Army.
21 May	German attack on Vimy Ridge
25 May	Conscription extended to include married men aged 18 to 41
31 May	Battle of Jutland
4 June	Russian Brusilov Offensive against Austro-Hungarian and German forces.
5 June	Death of Kitchener by the sinking of HMS *Hampshire* en route to Russia to discuss joint strategy.
24 June	Preliminary bombardment on the Somme begins (British code – U Day. Final day to be Z Day)

27 June	Haig moves his headquarters to the Château Valvion 12 miles (19km) from Albert – X Day
28 June	Y Day and Z Day postponed by two days due to bad weather
29 June	Y+1
30 June	Y+2
1 July	Z Day – the attack. 7.30am Allied Time.
15–22 September	Battle of Fiers-Courcelette. First use of tanks
13–18 November	Battle of the Ancre – Beaumont Hamel captured
18 November	Official end of the battle of the Somme

1917

14 March–5 April	German Army falls back to the Hindenburg Line.
6 April	United States declares war on Germany.
9 April–15 May	The battle of Arras and capture of Vimy Ridge.
16 April–early May	General Nivelle's offensive. Failure by the French leads to mutiny among some soldiers.
7–14 June	Battle of Messines. Nineteen mines are used to dislodge German defenders in the southern Ypres Salient.
31 July–10 November	The third battle of Ypres, Passchendaele. The BEF attempts to break German defences around Ypres.
20 November–7 December	Battle of Cambrai, with mass use of tanks

1918

3 March	Treaty of Brest-Litovsk – Russia signs an agreement with Germany and the war on the Eastern Front ends.
21 March–5 April	German offensive in the West.
April onwards	Arrival of American Expeditionary Force
8 August–3 September	Battle of Amiens and start of Allied advance
12 September–9 October	Hindenburg Line broken.
9 November	Kaiser abdicates.
11 November	Mons captured. The Armistice comes into effect.

OPPOSING COMMANDERS

GERMAN COMMANDERS

General der Infanterie Fritz von Below (1853–1918)

General von Below commanded the German Second Army from his headquarters at St Quentin. His early career had marked him out as a thoroughly competent officer and his professionalism showed in the preparations for the Somme offensive. In the spring of 1916 he became aware that the British were preparing for an attack in his sector, although his view was not shared by von Falkenhayn, the Chief of Staff of the German Army. Despite making a series of proposals to higher command about ways in which it might be possible to deal with the growing threat, von Below was largely ignored. In part this was due to the prevailing attitude of German high command about the British forces, especially the fighting abilities of the New Army units. These were regarded as having 'limited combat value', indeed early experience of von Below's own troops had demonstrated that British units were amateur and inexperienced in comparison to their German counterparts.

In March 1916 von Below proposed that an attack be launched against the British before they could build up their forces for their own offensive. This attack would be initially north of the Somme, but with a subsequent operation south of the river. He was, however, working against the background of the Verdun operation, which was drawing in German troop reserves and munitions, both of which would be needed for his planned operation to succeed. With his initial proposal ignored, he took matters into his own hands and was one of the architects of the extended trench dugout and barbed-wire system that was in place on 1 July 1916. Defences were only a partial solution, and as some of his troops toiled to make the necessary improvements in the front line, others deepened the second-line positions and started the third line of defences. Despite these preparations, von Below was sufficiently concerned by 2 June 1916 to once again send a message to von Falkenhayn about the still-growing threat on the Somme. The Chief of Staff shared some of von Below's concerns and had already considered a number of schemes on the Western Front that appeared potentially more successful than the Verdun battle, which was now four months old and not achieving its aims. However, two days after the request to launch a pre-emptive attack on the Somme the surprise Russian Brusilov Offensive tore into the Austro-Hungarian forces on the Eastern Front. Now the opportunities to use reserve forces on any of the schemes considered for the Western Front had gone, and German units were sent to the East to help stem the Russian attack. By 1 July, despite all von Below's calls for assistance, he had only received an additional four divisions of infantry and some heavy artillery. Judging by the scale of the

The Kaiser as warlord. This postcard was sold to raise money for the German Red Cross and shows the Kaiser as he wanted to be seen – the victorious military leader. The war was not over, however, 'Before the leaves fall from the trees', as he promised. It was left to his generals to devise a war-winning strategy. (Author's collection)

threat facing him, von Below must have considered the situation far from ideal and must have been aware that the Allied war strategy was, at least as far as the Second Army was concerned, producing results that threatened his army's ability to deal with the offensive when it came on the Somme.

Generalleutnant Hermann von Stein (1854–1927)

Generalleutnant von Stein was the commander of XIV Reserve Corps, which was to face the British attack. He was a long-serving professional soldier and rose from divisional commander to quartermaster-general on the outbreak of war. In September 1914 he became the commander of the Reserve Corps, which had just taken over the Somme sector. The troops commanded by von Stein proved to be innovative and daring, mounting ambitious raids against the French and later the British forces facing them. The corps was able to take the initiative on numerous occasions and the objective of 'dominating' no man's land, which British tactical doctrine demanded, was made almost impossible by these advanced German techniques. This was partly due to von Stein's leadership, and in late February XIV Reserve Corps circulated a document on patrolling and trench raiding that was eventually sent to all main headquarters within the army. This document covered everything from intelligence and the choice of weapons to deception plans and the value of decorations to successful raiders. In short, it demonstrates the level of preparation achieved by the corps even before the first shell of the preliminary bombardment was fired. On 1 July, despite the weight of the initial bombardment and the number of men committed against his front, von Stein retained control of most of his forces and gave personal orders for some of the important counterattacks.

BRITISH COMMANDERS

The background

Unlike their German opponents, few of the British commanders had experience of commanding large forces in the field before they engaged in the Somme battle. Of the senior commanders, only Haig, Rawlinson and Gough had previous experience of command at this level, at Loos in September 1915. Haig had begun the war as a corps commander and the other five British Army commanders had started the war commanding divisions. The contrast in experience and lack of training in command at a high level would hamper operations throughout 1915 and into 1916. One result of the Somme was to introduce an increasing number of British senior officers to commanding large numbers of men in action. As part of this process mistakes were made, with the consequence that lives were lost, but the process of turning a well-trained but inexperienced army into one with a high-level fighting ability inevitably results in this kind of loss. In Normandy in 1944, despite the British Army spending four years on intensive training in the United Kingdom, Nazi troops were on average able to kill twice as many enemy soldiers than their British opponents in the opening weeks of the campaign. Unfortunately for the senior commanders on the Somme, neither they nor the majority of men they commanded had the experience needed. Nor did they have

The Château de Beaurepaire near British GHQ at Montreuil was the home of Sir Douglas Haig from March 1916 to April 1919. During the major battle Haig left this comfortable château and was housed with his immediate staff in a train or building closer to the action. However, access to the telephone network played a key factor in the choice of battle headquarters. (IWM Q3643)

the luxury of time to assimilate knowledge, as Allied strategy dictated that the battle would begin in the summer.

General Sir Douglas Haig (1861–1928)

Haig's early career was with the cavalry serving, like Rawlinson, in the Sudan. However his service in the Anglo-Boer War (1899–1902) and the failings he observed there demonstrated the need for reform in the British Army. In the period after 1902 he worked closely with Richard Haldane, the Secretary of State for War, and helped to carry out numerous reforms that would prove beneficial on the outbreak of the First World War. In 1914 he was one of two corps commanders in the BEF, and despite a 'panic' during the retreat from Mons (when a German night attack caused alarm amongst the men of I Corps) he proved to be competent at this level, if not always sharing the same viewpoint on strategy as Sir John French, the commander of the BEF. Following the badly handled operation at Loos, Sir John French was replaced by Haig and although there have been suggestions that Haig had been a critic of his predecessor, it was clear that Sir John had to go and that Sir Douglas was the man to replace him.

No senior military commander ever works without the burden of political pressure, and Haig's command came with a considerable amount, both from the United Kingdom and from European allies. He was a junior military partner in a coalition and yet his instruction from Kitchener, Secretary of State for War, was that his 'command is an independent one', even though he would have to co-operate with the Allies. From the early meeting with Maréchal Joffre, at which the significance of the presence of the French prime minister would not have been missed, Haig tried to influence decisions. Haig's view of the forthcoming battle was that it would be decisive and that he wished to avoid a straightforward battle of attrition. His training and outlook suggested an ambitious plan of operation in which a breakthrough on the Somme would lead to ultimate victory. Although this was his initial aim, the events of the spring of 1916 meant that a decisive outcome to the battle became

Lieutenant-General Sir Henry Rawlinson, outside Querrieu Château near Amiens, Fourth Army Headquarters, July 1916. If 'château generalship' was to become unpopular in the next war, it was only because radios allowed commanders to move away from a rigid communication system based on telephone networks. Only by being at the château could Rawlinson control his troops and the progress of the battle. (IWM Q4031)

less certain. At the same time the importance placed by the Allies, especially the French, on the contribution to be made by the BEF to joint strategy became increasingly critical.

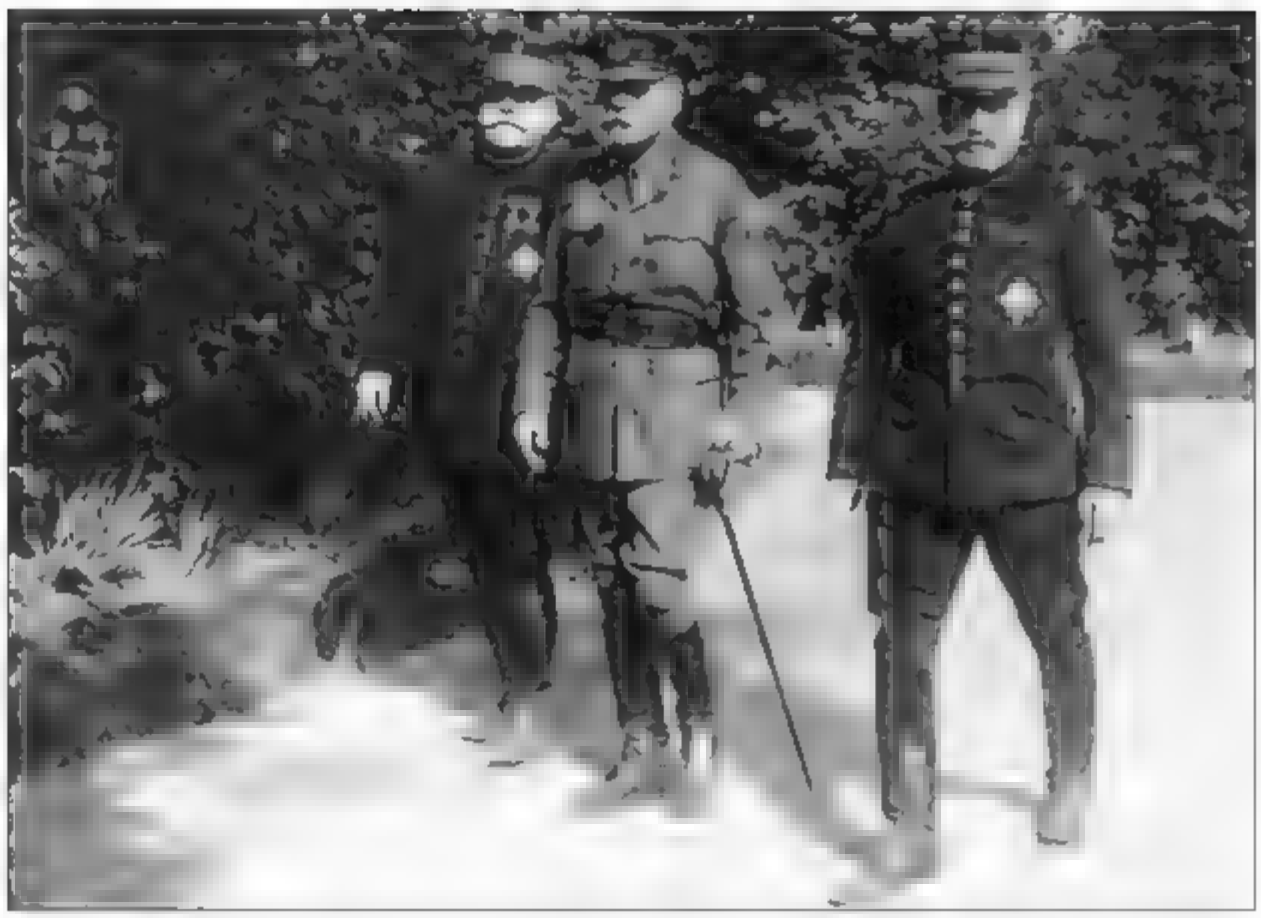
Haig's choice of Sir Henry Rawlinson for commander of the Fourth Army was based upon Rawlinson's experience as a subordinate commander and his ability to plan complex operations. He also had experience of working with the New Army troops that would form an important element of his command. Unfortunately the two men did not agree on the scope and 'pace' of the battle. Haig's preference for an ambitious operation that would pave the way for 'open', rather than trench, warfare was at odds with Rawlinson's cautious approach. The operational plan that was eventually achieved was a compromise that Haig still hoped would achieve the breakthrough he favoured. On the eve of battle, the military reality of the situation made this increasingly unlikely. Haig wrote, 'I feel that every thing possible to achieve success has been done. But whether or not we are successful lies in the Power above.'

Lieutenant-General Sir Henry Rawlinson (1864–1925)

Despite the common misconception that the senior commanders on the Somme were all cavalrymen, Rawlinson was in fact an infantryman who served in both the King's Royal Rifle Corps and Brigade of Guards. His early experience was in the numerous colonial struggles that characterized Queen Victoria's long, and far from peaceful, reign. In common with Haig he served in both the Sudan and in the Anglo-Boer War (1899–1902). While serving in the latter campaign as a column commander, and later after observing the Japanese Army on manoeuvre, he was favourably impressed by the superiority of volunteer soldiers over conscripts and also saw that massed machine guns were highly effective. At the same time he concluded that infantry would decide 'the issue of battle' and that cavalry should be trained to fight on foot. Unfortunately he ascribed the establishment of the trench system around Port Arthur in the Russo-Japanese War to lack of initiative by the Japanese attackers.

In 1914 he was without command and was appointed Director of Recruiting by Kitchener, with whom he had served in the Sudan and South Africa. Rawlinson shared Kitchener's view that the war would not be 'over by Christmas' and that a citizen army would need to be raised by Britain. His first field command was still-born. He was given command of a mixed force of infantry and cavalry to defend Antwerp from the Germans, but before his force could arrive it was clear that the port would fall and his command, now IV Corps, arrived on the River Aisne as the first trenches were being constructed.

Rawlinson served under Sir John French during the first battle of Ypres in the autumn of 1914. Whilst serving under Haig, then commander of First Army, he planned and executed the operation at Neuve Chapelle. He concluded that artillery provided the key to success and devoted lavish attention to the preparations for an ambitious bombardment. This included amassing an unprecedented amount of ammunition and artillery pieces and the use of innovative technology in the form of aerial photography. In subsequent operations he neglected artillery, and although he used other military innovations such as gas and smoke at Loos in September 1915, there is a noticeable lack of consistency in his application of the lessons he learned. However, in this



Maréchal Joffre, the French commander-in-chief, Sir Douglas Haig and Général Foch, commander from July of the French Northern Army Group. Under constant political pressure from home, Haig was not waging a battle in a place or at a time of his own choosing. His somewhat difficult relationship with the French commanders was the result of differing military and political objectives. (IWM Q992)

last battle he assigned a New Army division to the capture of the village of Loos, demonstrating his faith in these newly raised formations. Having been given command of the Fourth Army in early 1916, he devoted himself to the planning of the summer offensive, first near Ypres and later on the Somme. Once again his performance was inconsistent as he abandoned large-scale plans to screen the attack with smoke, despite the advantage this technique had offered at Loos, while at the same time reducing the employment of gas.

Critically, when planning for the Somme battle, Rawlinson was inconsistent about tactical doctrine, offering useful guidance in some aspects of the forthcoming battle, while largely leaving it to subordinate commanders to decide how to employ the supporting artillery and even the tactics at battalion level that would help them cross into the enemy position. Most damning was his relationship with Haig, who unlike Rawlinson advocated a bold thrust deep into the enemy position with minimum preliminary preparation. This would then be exploited by cavalry, leading to the collapse of the German position. Rawlinson's concept of 'bite and hold', utilizing the artillery to screen the infantry and gradually eating into the enemy position, demonstrated caution and the lack of a common vision by the two men. The operational plan that resulted was based on a series of compromises in which, arguably, Rawlinson demonstrated a lack of resilience to his superior's views and poor leadership to those under his command. On the eve of the battle he wrote in his diary that he was 'pretty confident of success'. It remained to be seen whether the confidence would be enough.

FRENCH COMMANDERS

Maréchal Joseph Joffre (1852–1931)

Affectionately known as 'Papa', Joffre was French commander-in-chief throughout the battle of the Somme. During 1914 he worked hard to

ensure that there was no repeat of the disaster of 1870–71 when Paris fell and France was defeated. As commander in 1915 he planned the series of offensives designed to expel the German invaders from the soil of France, for which his only reward was a massive casualty list. This loss of life could not shake the resolve of the French people or soldiers to eject the German Army, and the battle he planned on the Somme for the summer of 1916 was a 'wearing out fight' designed to break German resolve. He shared Rawlinson's view that the battle called for extensive use of artillery to prepare for the offensive, and was dismissive of Haig's concept of a rapid breakthrough achieved by a lightning barrage and surprise. Joffre was an advocate of the heavy artillery preparation for the attack, and the success achieved by French forces on both banks of the Somme on 1 July can be attributed to the number of guns, especially of larger calibres, that Joffre provided for his troops.

Although Joffre was without doubt the senior partner in the coalition he was not the commander of the Allied Forces, and while he could not be ignored by the independent commanders, he acted only with their consent. This required diplomacy and a skilful handing of the situation. During the battle of the Somme Joffre relied upon Ferdinand Foch, commander of the French Northern Army Group, to work with the British. To this end joint planning meetings of the senior British and French commanders were held. If relations were at one time strained in the period leading up to 1 July, Joffre avoided the problems that had beset Sir John French's relationship with the French high command. Later in the campaign Joffre and Haig did argue about the strategy employed in the continued battle, but this did not prevent them working together in pursuit of their joint objective.

OPPOSING FORCES

THE GERMAN ARMY

The German military system was, as in most of continental Europe, based on universal conscription. As a consequence, every male in Imperial Germany was liable for military service from his 17th birthday, when he joined the local guard or *Landsturm*. From the age of 20 he carried out two years of compulsory service in a local unit, or three years if he became a gunner or cavalryman. From then on, until he was released from this obligation on his 45th birthday, he would continue to carry out periods of military service. The result was that the nation was fully militarized, and a belief in the supremacy of their armed forces was central to the thinking of most Germans.

One advantage enjoyed by the German soldier was that pre-war organization led to the local or regional depot combining infantry, artillery and cavalry into brigades and divisions that trained together. The rapid mobilization of this force was critical. The Schlieffen Plan called for a lightning victory in the West before the army was largely transferred to the East, thus the German railway system was planned for both military and economic purposes. One feature of this mobilization was an effective doubling of the German establishment by means of

The men who faced the onslaught. A typical example of officers, NCOs and men from an unknown German infantry unit in which the privates are wearing the *mutze* soft cap. The steel helmet that was issued at Verdun from February 1916 was not seen until later in the battle of the Somme. The leather helmet, the *pickelhaube*, was a prized souvenir for British soldiers. (Author's collection)

This section of German infantrymen are typical of the men who placed the barbed wire and dug the trenches and dugouts that made up the defence scheme on the Somme. The fighting ability of German regulars and reservists alike on 1 July was proof of the high level of training achieved by the pre-war conscripts. (Author's collection)

calling up all reservists to form Reserve Divisions, which were the mirror of their regular formations, although weaker in artillery.

Although the Schlieffen Plan was halted on the Marne in September 1914, the 'Old Army' proved to be a tenacious opponent, skilled in attack and counter-attack. The Germans began the war equipped with many of the weapons required for trench warfare, including grenades, mortars and heavy artillery. Despite the German Army starting the war with a tactical doctrine based on the grand offensive, the advantage of digging-in led to a change of strategy to one based on digging-in deep and building defences in depth. The comparative lack of activity on the Somme during 1915 and early 1916 was used to good effect, and the chalk subsoil proved to be ideal for the mining of deep dugouts. Wiring was an important activity, and belts of barbed wire were a feature of all German defensive positions. Unlike their British opponents, German units tended to hold sectors of the line for considerable periods, alternating battalions between the front line, reserve and resting. As a result, German divisions were familiar with the ground they held, and when engaged in building defences realized that they, rather than a relieving formation, would receive the benefit of their hard work. Such was the pace of the building programme that some men complained life was easier in the front line than when they were working on trench construction.

The quality of the German soldier

Many of the German formations on the Somme front in 1916 were composed of reservists, and most of their men, like the British, had been civilians in 1914. However, the resemblance ended there: the average German reservist had two years' pre-war training, had been in action against the French in 1914, had probably survived one of the French assaults in the area in 1915, and had nearly two years of trench warfare experience to his credit. Morale was high and, with some justification, the German soldier on the Somme considered himself much superior in soldiering skills to either the French or British. These men would not be easy to break. However, the question remained: when the attack came, had the German soldiers, regulars and reservists alike, been sufficiently active to ensure that they would survive the preliminary bombardment and slow down their attackers for long enough to give themselves time to get into action before being overrun?

THE BRITISH ARMY

The British Expeditionary Force

The BEF that General Haig inherited in December 1915 was in the process of rapid expansion and comprised units with varying levels of training and experience. In 1914 the basis of the BEF was four (later seven) divisions consisting of regulars and reservists who were recalled on mobilization. In January 1916 Haig commanded 38 infantry and five cavalry divisions. During the same period the BEF had lost over 512,000 casualties, and although many of these men would recover from their wounds, the loss of such a significant number of officers and NCOs was to have profound consequences for the army of 1916. By July of that year the BEF had expanded to 58 divisions, organized into 18 corps and four

Recruits of the York and Lancaster Regiment drill in late 1914. Only the NCOs have uniforms and the weapons are the early pattern of Lee Enfield used in the Boer War, but replaced by the SMLE in 1907. The clothes suggest tradesmen rather than the labourers that normally enlisted in the army in peacetime. Men such as this would prove to be brave, intelligent and willing, but it took time and experience to produce good soldiers. (IWM HU37016)

armies. To achieve this expansion of the BEF it was necessary to create new Regular and Territorial divisions and to move divisions from imperial defence to the Western Front. The Territorial Force, totalling 14 infantry divisions and 14 cavalry brigades, was a creation of the Haldane reforms of 1908 (a number of army reforms based on the German model made by the then Secretary for War, Richard Haldane). This new structure for Britain's reserve forces changed the status of the previous Militia and Yeomanry by linking the units of the new Territorials with the Regulars in the same region. They now shared the same titles, history and depots, but the Territorials were not obliged to serve overseas unless they volunteered to do so. In the autumn of 1914 few of these part-time soldiers failed to take the General Service Obligation and many soldiers on the Somme would wear a small silver badge on which was written 'Imperial Service'.

The 'New Army'

Faced by a shortage of manpower for a global struggle, Kitchener was one of a very small number of people who foresaw that the war would not be 'over by Christmas' and he envisaged the raising of a vast citizen army. Britain had never relied upon conscription and, while it remained true that the real compulsion to join the forces was hunger, it was the appeal to patriotic fervour that Kitchener decided to utilize in the creation of his 'New Army'. This policy was not without opposition, but in August 1914 he received parliamentary approval to raise half a million men to form 18 new divisions. At the end of the month he put out an appeal for the first 100,000 volunteers who were to use the existing system of regiments and depots, but were in all other respects comprised of local magnates, mayors and landowners all linked to regions, specifically the industrial, and populous, counties of northern Britain. This led to the 'Pals' phenomenon in which men from cities, clubs, teams and businesses, chiefly in the northern and midland counties, volunteered on the basis that they would serve together. These City Battalions of the New Armies, sometimes known as 'Kitchener's Armies', were so successful that places

The Regimental Medical Officer (RMO), apparently the recipient of the Military Cross, of an unknown battalion poses for the camera with 16 stretcher bearers allocated to his small command. Wearing their SB armbands, they would venture onto the battlefield to recover the wounded and bring them to the RMO at his aid post in the trenches. One RMO recorded that on 1 July he treated the wounded for more than 30 hours without being able to wash his hands. (Author's collection)

such as Hull, Leeds, Glasgow and Accrington raised single or multiple battalions. A total of 134 battalions would ultimately be raised, many of which would serve together in regionally linked divisions. Although many of these units had elements of the Pals battalions, others were simply designated K1 or K2, formed from the first and second hundred thousand volunteers. In the case of the volunteers who formed the 18th Division, they were put onto trains in London and formed into companies as they arrived at railway stations in East Anglia by officers equipped with a clipboard and little else. Kitchener's plan was that this army of volunteers would train until late 1916 or even 1917 before being committed to battle. By this time the conscript armies of continental Europe would have been worn out by the protracted warfare, leaving the opportunity for the New Army to deliver the final decisive blow to the German forces. However, time was not available and units of the New Army began arriving in France in 1915, and were to form major components of the BEF in the battle of the Somme.

Not really an army?

There was no questioning the enthusiasm of these men who had rushed to volunteer on the outbreak of hostilities; what was in doubt was their training. Many units had been hampered by the lack of uniforms and weapons until the early part of 1916, and their officers frequently lacked recent military experience; much of what was taught did not prepare these units for the reality of modern warfare. Haig and his senior commanders realized the limitations of this kind of soldier. In early 1916 what was required was more time to train and acclimatize these units to both trench warfare and the offensive. In March 1916 Haig confided in his diary that 'I have not got an army in France really, but a collection of divisions untrained in the field. The actual fighting Army will be evolved from them.' If he hoped for more time to undertake the training that these men needed, the reality of the situation was that they would be committed to battle whether they were fully trained or not. The lack of training was not merely reflected in a deficiency of skills among the

infantry, such as shooting, bayoneting or bombing; it was also seen in the training of the gunners, for whom fusing the shells and basic aiming at distant targets were critical. If most of the infantrymen had been civilians in 1914, many of the gunners had spent 1915 training with obsolete or dummy weapons and only received modern guns, sights and ammunition just before they embarked for France. Not so obvious, but still critical, was the question of supplying nearly half a million men and 100,000 horses with food and water. Road and rail building, plus the movement of the millions of tons of ammunition required for the offensive, called for thousands of labourers at a time when few were available.

Critically, all the planning to keep the trench line where it was, even before an advance, required basic staff work of a high standard. Keeping an army supplied and fit in the field necessitated the sort of skills needed to manage a city the size of Manchester, but on the far side of the Channel. Unlike the pre-war German Army, which practised warfare with large formations, the British Army had little opportunity to practise corps operations and it had had none at all at the critical army level required for the offensive. The expansion of the BEF had been so rapid that few men in senior command in 1916 had staff experience, and this weakness had already been seen at Loos. Poor staff work meant that reinforcements were not available to exploit a successful attack and the opportunity to break through was lost.

A modern army prepared for open warfare

If this situation was complex, so was the effect of new weapons and tactics upon the training of volunteers. The Anglo-Boer War (1899–1902) had been the British Army's introduction to modern warfare and the period between 1902 and 1912 had seen reform of almost every aspect of the army's organization and equipment, from uniform and weapons to fieldcraft and tactics. The British infantryman at Mons in August 1914 fought with a Short Magazine Lee Enfield (SMLE) rifle, adopted in 1907, capable of firing 15 aimed shots per minute at a maximum range of 2,000 yards (1,828m). The infantry battalion consisting of over 800 men had the support of two Vickers machine guns per battalion, with a similar range, but a rate of fire of 550 to 600 rounds per minute. The infantryman's uniform of khaki cloth was adopted in 1902 and his personal equipment, the Mills 1908, was the most modern load-carrying equipment of any of the nations involved in the war. Local artillery support came from guns firing at a range in excess of 6,500 yards (5,941m), and these guns largely still engaged targets over open sights. The BEF of 1914 had been organized to sacrifice firepower for mobility; it started the campaign with few howitzers capable of engaging targets by means of indirect fire and only 16 60lb guns as their heaviest weapons. The firepower and fieldcraft of the British regulars amazed von Kluck's German First Army at Mons. At least one of their number, Walter Bloem, thought that British soldiers would be in red uniforms and assumed that the first British prisoner they took was a golfer.

By the beginning of the Somme, fighting had changed and the regulars of 1914 were an increasing rarity in the ranks of the BEF. Now the infantryman had begun to adopt some of the complexities of 'modern' warfare. From early 1916 he was issued with a steel helmet, an anti-gas respirator and, when going into the attack, carried a minimum

A platoon of D Company, 7th Battalion Bedfordshire Regiment (part of the 18th Division) on the march. Note the average age of the troops and the variety of heights. This unit would be involved in the successful action close to Montauban in which it lost over 330 men killed, wounded and missing. (IWM Q79478)

of two Mills bombs (grenades). Some infantrymen had become 'bomber' specialists, able to use grenades to clear trench systems. For trenches out of range of grenades thrown by hand, the rifle bombers were able to use the standard rifle to fire grenades over 100 yards (91m). The infantryman was also increasingly familiar with the firepower of the Lewis gun, which had replaced the Vickers in the battalion. The Vickers machine guns were now in the hands of the newly created Machine Gun Corps and the support of these weapons, together with increasingly sophisticated types of light and medium trench mortar, was an important part of the battlefield 'tactical mix'

The artillery had also undergone a revolution and now relied upon an increasing number of heavy guns and howitzers. All artillery now fired indirectly, controlled by means of observers in or just behind the trench line, or overhead, as observers from the Royal Flying Corps (RFC) could now 'spot' for the guns. Few planes of the RFC had the primary task of engaging enemy machines and most missions were photo reconnaissance, observation, counter-battery or 'contact patrols' designed to discover where forward friendly forces were on the battlefield. The RFC had over 180 aircraft available for use on the Somme and for a brief period had the advantage over their German opponents both in terms of numbers and in the technology of the machines.

Command and control in the era of the telephone

In a world without portable radios, command and control depended upon an increasingly sophisticated telephone network snaking back from forward positions to the commanders behind the lines. The basic problem was that telephone cables did not exist forward of the front-line trenches; once a unit advanced its progress was impossible to detect unless its men could be seen, much as Wellington had controlled his men in 1815. Alternatively, information could be got from aircraft flying contact patrols. It is for this reason that men of the 29th Division went into battle with tin triangles fastened to their packs so their advance could be seen by aircraft overhead. With the infantry went signallers who took

with them the vital telephones and cables to be laid over no man's land and re-establish contact to the rear. Unfortunately these cables were vulnerable to artillery fire and even friendly forces, so the decision was taken to bury the telephone network leading to the front line at least 6ft (1.8m) deep. The task of digging these deep and narrow trenches and then refilling them fell to the infantrymen who were already involved in holding, supplying and fortifying the line, while at least in theory training for the offensive. The result was a compromise in which it proved largely impossible to release battalions for realistic offensive training, as men from all units were involved in a multitude of tasks required to prepare for the Big Push. As a result, units were allocated inadequate time for this type of vital training, and as the spring turned into summer, the variable qualities of corps and divisions became all too apparent.

Insufficient training and varied quality

One important task for the infantry was discovering more about the quality of the enemy and their defences by patrolling and raiding. It is instructive to reflect that two divisions that did badly on 1 July – the 29th (Regular, with experience at Gallipoli) and 31st (New Army) – did not carry out a successful raid during the period leading up to the battle. As a result of these and other obvious shortcomings it was hoped that the preliminary bombardment would compensate for the poor skills of this citizen army by pulverizing the German defences and killing or stunning the defenders. With these varied levels of training in mind, Rawlinson decided that although guidance in the form of Tactical Notes was issued to Fourth Army on 17 May, it would be left to individual unit commanders to decide how they would attack on the day.

THE FRENCH ARMY

By the end of December 1915, the French Army had suffered just a little fewer than 2 million casualties in 17 months of warfare. This was more than double the total strength of the BEF in France and Flanders on the same date and indicated a scale of casualties that the German Army hoped to exploit at Verdun. The fact that they did not succeed is the result of the tenacity of a conscript army united in hatred of its German enemy and a desire to hold every square yard of the motherland to avenge the humiliation of the Franco-Prussian War, specifically the loss of Alsace and Lorraine.

The French Army possessed many advantages: first its size and ability to absorb losses, and second a modern artillery force. The latter included the 75mm field gun, one of few weapons able to fire gas shells in mid-1916, plus a large number of heavy fortress guns, which if in some cases were antiquated were at least effective in positional warfare. The French Army learned that if it was to succeed it would be weight of artillery that would be vital. As a result, unlike the BEF the French Army had a high concentration of artillery pieces of all calibres, which included an abundance of heavy howitzers, guns and mortars capable of destroying German dugouts, cutting barbed wire and killing the German garrison. It is no coincidence that the commander of the French Sixth Army that attacked on the right flank of Rawlinson's Fourth Army was Général

Marie Emile Fayolle – a gunner. His artillery force comprised 117 heavy batteries, including 16 220mm howitzers and 24 120mm guns. The combined weight of fire was to overwhelm German defences and assist the infantry in breaking through the surviving defenders.

Critically, by the spring of 1916 few French units had not experienced the realities of trench warfare both in attack and defence. Joffre organized a rapid rotation of units serving at Verdun, which meant that although the Germans assumed that French divisions that were removed from the line had been destroyed, they had in fact been sent to the rear to rest before being employed on other fronts. On the Somme these soldiers included reservists from Brittany and Normandy. South of the Somme, some of the men were colonial troops from North Africa, including Algerians and Senegalese. All were to demonstrate both 'dash' and a level of tactical sophistication that were to prove extremely effective on 1 July.

A French railway gun about to go into action on the Somme front during the preliminary bombardment. The French had a high proportion of heavy-calibre weapons and used a greater number of guns than the British in the bombardment. The result was devastating and in some areas the German defence was patchy and ineffective when the French attack was delivered. (IWM Q70524)

ORDERS OF BATTLE

THE SOMME, 1 JULY 1916

GERMAN ARMY
From the north at Gommecourt to the south by the River Somme

SECOND ARMY – General der Infanterie Fritz von Below

XIV Reserve Corps: Generalleutnant Hermann von Stein
2nd GUARD RESERVE DIVISION: General der Infanterie Frhr. von Süsskind
Reserve Regts Nos. 15, 55, 77 & 91
52nd DIVISION: Generalleutnant von Borries
Regts Nos. 66, 169 & 170.
26th RESERVE DIVISION: General der Infanterie Frhr. von Soden
Regt No. 180, Reserve Regts Nos. 99, 119 & 121
3rd GUARD DIVISION: Generalmajor von Lindequist
(In reserve and arrived in the area around Courcelette in the early evening of 1 July.
Guard Fusiliers, Lehr Regt, Grenadier Regt No. 9
185th DIVISION: Generalmajor von Uthmann
(In reserve around Bapaume and moved to front on afternoon of 1 July.)
Regts Nos. 185, 186 & 190.
28th RESERVE DIVISION: Generalleutnant von Hahn
Reserve Regts Nos. 109, 110 & 111 Regt No. 163 (attached from 17th Reserve Division)
12th RESERVE DIVISION: Generalmajor von Kahler
(In reserve around Cambrai – reached Montauban-Mametz late on 1 July..
Reserve Regt Nos. 23, 38 & 51

VI Reserve Corps: Generalleutnant von Gossler
12th DIVISION: Generalleutnant Charles de Beaulieu
Regts Nos. 23, 82 & 63
11th RESERVE DIVISION: Generalleutnant von Hertzberg
(In reserve, and moved to front during 1 July.
Regts Nos. 22 & 156, Reserve Regt No. 10
10th BAVARIAN DIVISION: Generalmajor Burkhardt
(In reserve and split to reinforce the front.
Bavarian Regt No. 16 – to Bazentin. Bavarian Reserve Regt No. 6 – to near Somme. Bavarian Reserve Regt No. 8 – to Thiepval.

BEF INFANTRY AND PIONEER BATTALIONS
From north to south

THIRD ARMY - General Sir E. Allenby

VII Corps: Lieutenant-General Sir T.D.O. Snow
56th (1ST LONDON) DIVISION (Territorial Force)
Major-General C.P.A. Hull

167th Brigade:
1/1st London
1/3rd London
1/7th Middlesex
1/8th Middlesex

168th Brigade:
1/4th London
1/12th London (Rangers)
1/13th London (Kensington)
1/14th London (London Scottish)

169th Brigade:
1/2nd London
1/5th London (London Rifle Brigade)
1/9th London (Queen Victoria's Rifles)
1/8th London (Queen's Westminster Rifles)

Pioneers:
1/5th Cheshire

48th (NORTH MIDLAND) DIVISION (Territorial Force)
Major-General the Hon. E.J. Montagu-Stuart-Wortley

137th Brigade:
1/5th S. Staffordshire
1/6th S. Staffordshire
1/5th N. Staffordshire
1/6th N. Staffordshire

138th Brigade:
1/4th Lincolnshire
1/5th Lincolnshire
1/4th Leicestershire
1/5th Leicestershire

139th Brigade:
1/5th Sherwood Foresters
1/6th Sherwood Foresters
1/7th Sherwood Foresters (Robin Hood Rifles)
1/8th Sherwood Foresters

Pioneers:
1/1st Monmouthshire

37th DIVISION (New Army) In reserve
Major-General Count Gleichen

110th Brigade:
6/Leicestershire
7/Leicestershire
8/Leicestershire
9/Leicestershire

111th Brigade:
10/Royal Fusiliers (Fus)
13/Royal Fus
13/King's Royal Rifle Corps (KRRC)
13/Rifle Brigade

112th Brigade:
11/Royal Warwickshire
6/Bedfordshire
6/E. Lancashire (Lancs)
10/Loyal North Lancs

Pioneers:
9/N. Staffordshire

FOURTH ARMY General Sir H. Rawlinson

VIII Corps: Lieutenant-General Sir A.G. Hunter-Weston

48th (SOUTH MIDLAND) DIVISION (Territorial Force) – in reserve
Major-General R. Fanshawe

143rd Brigade:
1/5th R. Warwickshire
(attached to 4th Division)
1/6th R. Warwickshire
1/7th R. Warwickshire
1/8th R. Warwickshire
(attached to 4th Division)

144th Brigade:
1/4th Gloucestershire
1/6th Gloucestershire
1/7th Worcestershire
1/8th Worcestershire

145th Brigade:
1/5th Gloucestershire
1/4th Oxford & Bucks Light Infantry (LI)
1/Bucks
1/4th R. Berkshire

Pioneers:
1/5th R. Sussex

31st DIVISION (New Army)
Major-General R. Wanless O'Gowan

92nd Brigade:
10/E. Yorkshire (Hull Commercials)
11/E. Yorkshire (Hull Tradesmen)
12/E. Yorkshire (Hull Sportsmen)
12/E. Yorkshire (T'Others)

93rd Brigade:
15/W. Yorkshire (Leeds Pals)
16/W. Yorkshire (Bradford Pals, 1st)
18/W. Yorkshire (Bradford Pals, 2nd)
18/Durham LI (Durham Pals)

94th Brigade:
11/E. Lancashire (Accrington Pals)
12/York & Lancaster (Sheffield City Bn)
13/York & Lancaster (Barnsley Pals, 1st)
14/York & Lancaster (Barnsley Pals, 2nd)

Pioneers:
12/King's Own Yorkshire L. (KOYLI)
(Halifax Pals)

4th DIVISION (Regular)
Major-General the Hon. W. Lambton

10th Brigade:
1/R. Warwickshire.
2/Seaforths
1/R. Irish Fus
2/R. Dublin Fus

11th Brigade:
1/Somerset LI
1/E. Lancashire
1/Hampshire
1/Rifle Brigade

12th Brigade.
1/King's Own
2/Lancashire Fus
2/Duke of Wellington's
2/Essex

Pioneers.
21/W. Yorkshire

29th DIVISION (Regular)
Major-General H. de B. de Lisle

86th Brigade:
2/Royal Fus
4/Worcestershire
1/Lancashire Fus
16/Middlesex
(Public Schools Battalion)
1/R. Dublin Fus

87th Brigade.
2/South Wales Borderers
1/King's Own Scottish Borderers (KOSB)
1/R. Inniskilling Fus
1/ Border

88th Brigade.
2/Hampshire
1/Essex
Newfoundland Regt

Pioneers.
1/2nd Monmouthshire

X Corps: Lieutenant-General Sir T.L.N. Morland
36th (ULSTER) DIVISION (New Army)
Major-General O.S.W. Nugent

107th Brigade:
9/R. Irish Rifles (East Belfast)
9/R. Irish Rifles (West Belfast)
10/R. Irish Rifles (South Belfast)
15/R. Irish Rifles (North Belfast)

108th Brigade
11/R. Irish Rifles (South Antrim)
12/R. Irish Rifles (Central Antrim)
13/R. Irish Rifles (County Down)
9/R. Irish Fus (Counties Armagh, Monaghan & Cavan)

109th Brigade:
9/R. Inniskilling Fus (County Tyrone)
10/R. Inniskilling Fus (County Derry)
11/R. Inniskilling Fus (Donegal & Fermanagh)
14/R. Irish Rifles (Belfast Young Citizens)

Pioneers.
16/R. Irish Rifles (County Down, 2nd)

32nd DIVISION (New Army and Regular)
Major-General W.H. Rycroft

14th Brigade:
15/Lancashire Fus (Salford Pals, 3rd)
1/Dorsetshire
2/Manchester
15/Highland LI (Glasgow Tramways)

97th Brigade:
11/Border (Lonsdales)
2/KOYLI
16/Highland LI (Glasgow Boys Brigade)
17/Highland LI (Glasgow Commercial)

96th Brigade:
16/Northumberland Fus
(Newcastle Commercials)
15/Lancashire Fus (Salford Pals, 1st)
2/R. Inniskilling Fus

Pioneers:
17/Northumberland Fus
(Newcastle Railway Pals)
16/Lancashire Fus (Salford Pals, 2nd)

49th (WEST RIDING) DIVISION (Territorial Force) – in reserve
Major-General E.M. Perceval

146th Brigade:
1/6th W. Yorkshire
1/6th W. Yorkshire
1/7th W. Yorkshire
1/8th W. Yorkshire

148th Brigade:
1/4th KOYL
1/5th York & Lancaster
1/4th York & Lancaster
1/5th York & Lancaster

147th Brigade:
1/4th Duke of Wellington's
1/5th Duke of Wellington's
1/6th Duke of Wellington's
1/7th Duke of Wellington's

Pioneers:
1/3rd Monmouthshire

III Corps: Lieutenant-General Sir W.P. Pulteney

8th DIVISION (Regular) – attached from 23rd Division
Major-General H. Hudson

23rd Brigade:
2/Devonshire
2/W. Yorkshire
2/Scottish Rifles
2/Middlesex

70th Brigade:
11/Sherwood Foresters
8/KOYLI
8/York & Lancaster
9/York & Lancaster

25th Brigade:
2/Lincolnshire
2/R. Berkshire
1/R. Irish Rifles
2/Rifle Brigade

Pioneers:
22/Durham L.

34th DIVISION (New Army)
Major-General C. Ingouville-Williams

101st Brigade:
15/Royal Scots (Edinburgh City, 1st)
16/Royal Scots (Edinburgh City, 2nd)
10/Lincolnshire (Grimsby Chums)
11/Suffolk

103rd (Tyneside Irish) Brigade:
24/Northumberland Fus (Tyneside Irish, 1st)
25/Northumberland Fus (Tyneside Irish, 2nd)
26/Northumberland Fus (Tyneside Irish, 3rd)
27/Northumberland Fus (Tyneside Irish, 4th)

102nd Brigade:
20/Northumberland Fus (Tyneside Scottish, 1st)
21/Northumberland Fus (Tyneside Scottish, 2nd)
22/Northumberland Fus (Tyneside Scottish, 3rd)
23/Northumberland Fus (Tyneside Scottish, 4th)

Pioneers:
18/Northumberland Fus (Tyneside Pioneers)

19th (WESTERN) DIVISION (New Army) – in reserve
Major-General G.T.M. Bridges

56th Brigade:
7/King's Own
7/E. Lancashire
7/S. Lancashire
7/L.N. Lancs

58th Brigade:
9/Cheshire
9/R. Welch Fus
9/Welch
6/Wiltshire

57th Brigade:
10/R. Warwickshire
8/Gloucestershire
10/Worcestershire
8/N. Staffordshire

Pioneers:
5/South Wales Borderers

XV Corps: Lieutenant-General H.S. Horne

21st DIVISION (New Army and Regular)
Major-General D.G.M. Campbell

62nd Brigade:
12/Northumberland Fus
13/Northumberland Fus
1/Lincolnshire
10/Green Howards (10th Yorks)

64th Brigade:
1/E. Yorkshire
9/KOYLI
10/KOYLI
15/Durham L.

63rd Brigade:
8/Lincolnshire
8/Somerset L.I.
4/Middlesex
10/York & Lancaster

Pioneers:
14/Northumberland Fus

7th DIVISION (Regular and New Army)
Major-General H.E. Watts

20th Brigade:
8/Devonshire
9/Devonshire
2/Border
2/Gordons

91st Brigade:
2/Queen's
1/S. Staffordshire
21/Manchester (Manchester Pals, 6th)
22/Manchester (Manchester Pals, 7th)

22nd Brigade:
2/R. Warwickshire
2/Royal Irish
1/R. Welch Fus
20/Manchester (Manchester Pals, 5th)

Pioneers:
24/Manchester (Oldham Pals)

17th (NORTHERN) DIVISION (New Army) – in reserve
Major-General T.D. Pilcher

50th Brigade:
(attached to 21st Division)
10/W. Yorkshire
7/E. Yorkshire
7/Green Howards (7th Yorks)
6/Dorsetshire

52nd Brigade:
9/Northumberland Fus
10/Lancashire Fus
9/Duke of Wellington's
12/Manchester

51st Brigade:
7/Lincolnshire
7/Border
8/S. Staffordshire
10/Sherwood Foresters

Pioneers:
7/York & Lancaster

XIII Corps: Lieutenant-General W.N. Congreve VC

18th (EASTERN) DIVISION (New Army)
Major-General F.I. Maxse

53rd Brigade:
8/Norfolk
8/Suffolk
10/Essex
6/R. Berkshire

55th Brigade:
7/Queen's
7/Buffs
8/E. Surrey
7/R. West Kent

54th Brigade:
11/Royal Fus
7/Bedfordshire
6/Northamptonshire
12/Middlesex

Pioneers:
8/R. Sussex

30th DIVISION (New Army and Regular)
Major-General J.S.M. Shea

21st Brigade:
18/King's
(Liverpool Pals, 2nd)
2/Green Howards (2nd Yorks)
2/Wiltshire
19/Manchester
(Manchester Pals, 4th)

90th Brigade:
2/R. Scots Fus
16/Manchester (Manchester Pals, 1st)
17/Manchester (Manchester Pals, 2nd)
18/Manchester (Manchester Pals, 3rd)

89th Brigade:
17/King's (Liverpool Pals, 1st)
19/King's (Liverpool Pals, 3rd)
20/King's (Liverpool Pals, 4th)
2/Bedfordshire

Pioneers:
11/S. Lancashire

9th (SCOTTISH) DIVISION (New Army and South African) – in reserve
Major-General W.T. Furse

26th Brigade:
8/ Black Watch
7/ Seaforths
5/ Camerons
10/ Argyll & Suth

South African Brigade:
1st Regt (Cape Province)
2nd Regt (Natal & Orange Free State)
3rd Regt (Transvaal & Rhodesia)
4th Regt (Scottish)

27th Brigade:
11/ Royal Scots
12/ Royal Scots
6/ KOSB
9/Scottish Rifles

Pioneers:
9/Seaforths

FRENCH ARMY

From north to south:
Général Ferdinand Foch – Commander of French Northern Army Group
SIXTH ARMY – Général Fayolle

XX Corps. Général Balfourier
39th Division – Général Nourrisson
11th Division – Général Vuillemot

I Colonial Corps: Général Berdoulat

XXXV Corps: Général Jacquot

II Corps. Général Ducharte – In reserve

OPPOSING PLANS

GERMAN PLANS FOR DEFENCE ON THE SOMME

In early 1916 the German defensive system on the Somme was based on two lines; it was calculated that if the first line fell, an assault on the second line would involve the British in a time-consuming redeployment of their light and medium artillery. The two lines were between 2,000 and 4,000 yards (1,828 and 3,656m) apart, and the forward defensive system was fixed on a series of defended villages interspersed with supporting redoubts and strongpoints. These villages, although largely ruined, were prepared for defence and featured mined shelters under the buildings, command posts, extensive belts of barbed wire, trenches and machine-gun positions. The second line shared many features of the first and had the added advantage of being largely on a reverse slope, out of direct observation. A particularly important component of the defensive system was a web of deeply buried telephone cables, supplemented by lamps, horns, pigeons and well-trained teams of runners as backup in the event of communications failure.

Each defensive line consisted of three or more lines of trenches providing mutual support and accommodation. This accommodation was built to resist the penetrating power of heavy artillery and in general German troops had the benefit of deeply excavated dugouts. Work on the deepest dugouts had not begun until the spring of 1916, and although some shelters were at least 32ft (10m) deep with multiple entrances, some interconnected by tunnels, there was still work to be done in this area. Abundant wire had been placed in belts and full use was made of natural features such as Y Ravine at Beaumont Hamel. Redoubts were created that were largely capable of all-round defence. In many areas German front-line positions also had the benefit of high ground to the rear. This meant that machine-gunners and also artillery observers could see both no man's land and the area likely to be occupied if an Allied attack was initially successful.

The result was a system of defence that was stronger than anything seen before, but one that was most fully developed north of Fricourt. To the south, the ground was not so advantageous to the defenders. In this area the German defences lacked suitable observation positions and the rear and front-line positions tended to be closer together. One element of German tactical doctrine that could favour the attackers was immediate counter-attack to prevent ground being lost. Consequently, in many areas front-line positions were relatively heavily held by German troops. This feature of German doctrine favoured the attackers as it concentrated troops in the area under the most intense bombardment, resulting in heavier casualties than was necessary. To be successful the

A superb view of a typical German trench on the Somme showing the depth of the defence. Of particular note is the barbed wire covering the trench, making raiding difficult and attack virtually impossible. The German Army felt it could win the war by staying where it was and putting massive effort into improving its defences. For the Allies to succeed they had to push the Germans out of the occupied territory of France and Belgium – and this would mean attack. (Author's collection)

German defenders had to be able to survive any preliminary shelling and still be able to man their trenches before the attackers could cross no man's land and enter the trench system.

However, even if this happened the machine guns with direct observation could engage the attackers from the rear positions and the artillery could either open fire under orders from forward observation officers, or simply fire onto pre-arranged positions either on their own trenches or as a curtain in no man's land. Thus initially successful attacking troops would be cut off from reinforcement or re-supply. The Germans rehearsed these procedures intensively in the months before the battle.

THE BRITISH ARMY'S PLAN OF ATTACK

When the Fourth Army was established in January 1916 its commander was Sir Henry Rawlinson. He spent his first few weeks of command carrying out a study of the Ypres Salient as a suitable position for an offensive later in the year. As the Allied plan changed, Fourth Army was moved to the Somme, taking over the sector from the River Somme to Fonquevillers. In early March, Haig gave Rawlinson the task of planning an offensive in conjunction with French forces operating to the south of the Somme. Initially Rawlinson was given the overall objective of using artillery to overwhelm the German first- and second line defences on a frontage from Maricourt to Serre, before using the infantry to achieve a breakthrough. The breakthrough was to be followed by exploitation of the breach by reserves, including cavalry. In the light of the Verdun battle priorities changed, and the plan was subsequently adapted to the new situation, but even early in the planning process there was conflict between Haig's ambitious policy of broad front and deep penetration, and Rawlinson's more cautious step by step 'bite and hold' approach.

'Bite and hold'

Rawlinson based his policy on a number of factors, all of which were interrelated. The first was the relationship between the size of force available and the number of heavy guns that could be deployed. The

A British DH2 of the Royal Flying Corps. This is a typical type of Scout aircraft that during the early period of the battle of the Somme provided pilots of the RFC with a technical advantage over their German opponents. This brief period of aerial superiority meant that Allied reconnaissance machines could carry out the vital photographic and observation patrols of enemy lines in relative safety. (IWM Q67534)

total of five army corps in the Fourth Army dictated a front of approximately 20,000 yards (18,280m) with eight or nine men per yard and 200 guns of 6in calibre or above providing coverage of one gun per 100 yards (91m). The range of these guns and that of the more numerous field batteries next dictated the depth of each phase of advance. The heavy guns could cut wire and destroy defences at ranges up to 4–5,000 yards (3,656–4,570m); beyond that there were problems of accuracy and observation. As a result Rawlinson advocated initially breaching the first line and then over a period of about three days reorganizing and moving the guns forward before attempting to attack the German second-line positions. This, he argued, had the advantage of drawing German reinforcements into the 'killing ground' as they were bound to counter-attack. Critically, it meant that the British infantry would operate under cover of their artillery support, and that this support would compensate for their variable quality, especially if they became disorganized, which was likely, or faced counter-attack, which was certain. The plan also dictated that no British infantry would have to advance more than 3,000 yards (2,742m) in a single attack. This approach simplified the battle and slowed the pace of breakthrough; it also met with the approval of Rawlinson's corps commanders. Rawlinson also advocated a lengthy preliminary bombardment lasting not less than 50–60 hours (four to five days). This had the advantage of providing time to cut the enemy wire and potentially destroy many of the German defences, as it would allow the artillery to observe the effect of their fire and make the necessary adjustments. Unlike at Loos, large-scale use of gas did not feature in the initial plan, although the use of smoke to conceal attacking forces was advocated, as was mining with the aim of destroying major German strongpoints.

The ambitious alternative

When presented to General Haig, Rawlinson's plan was rejected as being too cautious and lacking any element of surprise. It also failed to take into account the changed role of the French forces, which were now to attack in corps strength on the northern bank of the Somme. In the light of these criticisms, Rawlinson was forced to redraft his plans and these were submitted to GHQ in mid-April. In his new plan, provision was made to seize objectives in the German second line, although this would have the effect of dispersing the artillery support and would certainly increase the risks involved in the assault. Rawlinson, however, refused to reduce the length of the preliminary bombardment, on the basis that with a fixed number of guns he could not produce a 'hurricane' bombardment in the few hours that Haig had advocated.

One major deception plan was formulated and in late April VII Corps of Allenby's Third Army was given the task of mounting a diversionary attack against the heavily defended Gommecourt Salient to the north of the Fourth Army's assault. It was not intended to exploit this attack and its purpose was to divert artillery fire and reinforcements from the offensive further south. To increase German attention to this area preparations were made as obvious as possible in the hope of deceiving them as to the frontage and direction of the forthcoming assault. For the same reason, wire cutting was carried out on the fronts of both First and Second Armies.

Loading a British 2in 'toffee-apple' mortar in a pit near Beaumont Hamel. With a range of just over 500 yards (457m) and a reputation for premature explosions that could kill the crew, the toffee-apple was nonetheless feared by the Germans for its devastating effect on emplacements and wire entanglements. These projectiles did not always detonate, but when they did the 'stalk' had a habit of being launched back into British lines. (IWM Q79486)

Final response from GHQ took until mid-May and by that time aerial reconnaissance had discovered that the Germans were building a third defensive line, which made the task of Fourth Army still more difficult. Despite this development it was clear Haig still thought that a collapse of the German defences could be achieved. He continued to pressure Rawlinson to plan for an even more ambitious alternative in which the cavalry reserve and Gough's Reserve Army might be able to push through the breach created by Fourth Army, especially if the high ground on the dominant spurs at Miraumont and around Poziéres was captured. It was hoped that this force would break out towards Arras and roll up the German defences from south to north.

A plan based on compromise

The plan that eventually evolved was a series of compromises that did not fully suit either those planning or those conducting the operations. It was driven by major political considerations and the requirement to co-operate, as a junior partner, with a demanding ally. The plan was ultimately based on the belief that the artillery could do sufficient damage to the German defences to get the infantry across no man's land and into the enemy position before the Germans could respond. On the matter of timing it was decided in consultation with the French that the British and French north of the Somme would attack at 7.30am, well after dawn, and half an hour later than Rawlinson had requested. The timing, it was argued, would facilitate observation of the advance and allow for maximum use of Allied artillery to deal with German strongpoints or counter-attacks. This meant that the attack would be made in full daylight in the same way that the British attack at Loos and the German assault at Verdun had been launched. By the time this decision had been reached Rawlinson had abandoned his initial plan to use smoke to assist the entire attack and ultimately left it to corps

commanders to decide whether or not to employ smoke. This was in keeping with Rawlinson's Tactical Notes and plans, which largely left it to corps and, in some cases, divisional and battalion commanders how to conduct their attack. As a result there were contrasts in timing, methods of attack, use of mines and even jumping-off positions. Despite the picture that most people have of lines of infantry leaving their trenches with fixed bayonets to walk towards the German positions, this tactic was rarely used on 1 July. In some cases battalions attempted to rush no man's land; others advanced at a slow walk. Some units advanced in waves; others used columns with platoons advancing in single file. In other instances battalions made their way into specially dug assembly trenches either in no man's land or immediately behind the British lines. In a few cases the infantry avoided signalling their intentions and simply filed out into no man's land before dawn to wait for 7.30am and the signal to attack.

PREPARING FOR Z DAY – ARTILLERY, BARBED WIRE AND DUGOUTS

Each day of the British artillery preparation was given a code letter beginning with U Day and ending on Y Day. Day one of the preliminary bombardment was fixed for 24 June, which meant that Z Day, that of the attack, was initially planned for 29 June. On paper the artillery force assembled for the bombardment looked formidable, with over 1,400 British guns of all calibres being available to fire more than 1.6 million shells at the German defences. In addition, the French were supporting their own assault and providing extra weight to the British bombardment in the southern sector

To succeed, this unprecedented bombardment had to achieve three objectives. The first was to cut the wire in front of the Germans' first- and second-line defences. This task was largely given to the more than 1,000

A British soldier stands in the crater created by a high-explosive shell to demonstrate what well-aimed artillery with good fuses can do to a barbed-wire entanglement. However, the crater now forms an obstacle and the gap created would funnel attackers into the 'killing zone' of a defending machine gun. (IWM Q832)

A German barbed-wire defence as captured near Mametz. This photograph demonstrates the sophistication of barbed wire in which a double row of stakes has been linked to form a dense entanglement. On the attacker's side an apron pegged to the ground prevents the upright wire from being easily cut. This is a formidable obstacle to infantry. (IWM Q4181)

field guns, and more than 1 million shrapnel shells were used in the role. In some areas, specifically on the northern front, heavy guns were diverted from other tasks to assist with wire cutting, thus diverting their weight of fire from this vital role. The second objective, which was left to the 283 howitzers of 6in calibre and above, was the destruction of the trenches and dugouts of the German defensive system, and the death or neutralization of their occupants. A total of 188,500 shells were used in this role. The final task was the destruction of defending artillery by means of counter-battery fire, a task largely left to the 160 heavy guns not used on other tasks. At this stage in the war, means of locating hidden guns other than by direct observation were in their infancy, so it was unlikely that the German artillery would be overwhelmed before other problems became apparent.

Early in the bombardment bad weather in the form of mist, low cloud and rain hampered British observation. Balloons and the observation aircraft of the RFC were grounded and even observation officers on the ground were unable to adjust fire or assess the effect of the shooting. As a result, on 28 June Rawlinson postponed the assault for two days to increase the opportunities for the artillery to carry out their tasks. This decision increased the number of shells fired overall, but reduced the numbers available for the guns on 1 July. When firing was possible, problems were experienced with fuses: some heavy shells exploded prematurely and others failed to function at all. This frustration was compounded by bad fuse setting for the 18lb field guns that were meant to breach the wire. Detonated too high, these shells lacked the energy to cut the thick German wire, and if too low the shells either cut small sections to pieces or exploded on contact with the ground, where they would merely cause craters and throw the wire into the air without cutting it.

Results of the bombardment were patchy, and despite raids and patrols being mounted during periodic lulls in the shelling, information was partial and ambiguous. On the front of XIII Corps patrols noted the wire well cut and XV Corps reported that the wire was only intact in the

area facing the 21st Division. Further north the news was not so good and VIII Corps noted that in front of the 29th Division the wire had been cut in some places, but opposite the 4th and 31st Divisions success was very poor. To some extent raiding, which occurred during the night in line with lulls in the bombardment, provided similarly varied results. In the southern sector, where a few prisoners were taken, some of them reported that the dugouts had been destroyed while others stated that they were largely undamaged. Lack of successful raids in the northern sector lead to the false conclusion that the results of the bombardment were broadly similar, although generally more successful further south. Unfortunately one reason that the British raids were not successful was the robust German response. Despite the days of British shelling enemy artillery barrages were reported as variously 'heavy, active and moderate'. Post-war reports indicated that few German guns had been destroyed, many more had arrived to reinforce the defence and over 590 field and 240 heavy guns, many undetected, waited the assault. It is now clear that with the wire uncut in some sectors and German artillery still in action, success on Z Day was by no means certain. For the commanders on the ground, uncertain of the real situation on the enemy side of no man's land and aware that the attack could not be cancelled, a feeling of cautious optimism prevailed. One British officer told his men that not even a rat could survive the bombardment

The artillery plan called for a peak level of bombardment to be reached from 7.00am and then for the guns to gradually increase the range as the infantry advanced. This fixed timetable was rigid in some areas and called for a series of lifts in which the shelling would cease in one area and then start further into the enemy positions. On the front of XIII, XV and VIII Corps a different approach was tried – a creeping barrage in which a curtain of shells was advanced across the battlefield ahead of the infantry it supported. This sophisticated technique would become standard by 1917, but it was an innovation on the Somme.

Motor cyclist 'Pigeoniers' from the Royal Engineer Signal Service carry panniers of pigeons towards the front. Once released with their messages, they will return to the motorized loft shown behind. Pigeons could be used when telephone cables had been cut by shelling and were often the only means by which advancing troops could communicate their position or situation. (IWM CO 2171)

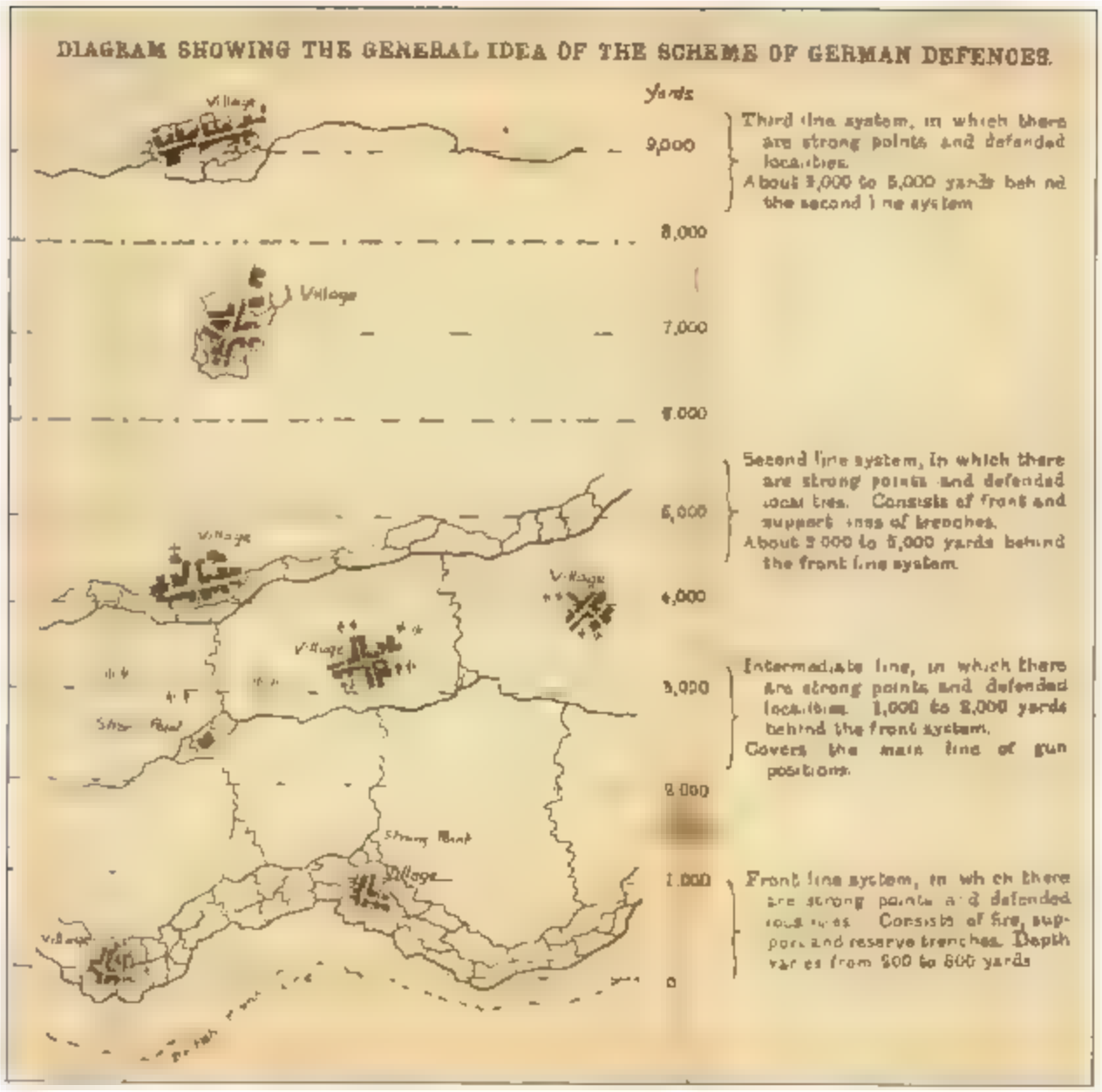


DIAGRAM SHOWING THE GENERAL IDEA OF THE SCHEME OF GERMAN DEFENCES.
Yards
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
Third line system, in which there are strong points and defended localities.
About 3,000 to 5,000 yards behind the second line system
Second line system, in which there are strong points and defended localities. Consists of front and support lines of trenches.
About 2,000 to 3,000 yards behind the front line system.
Intermediate line, in which there are strong points and defended localities. 1,000 to 2,000 yards behind the front system.
Covers the main line of gun positions.
Front line system, in which there are strong points and defended localities. Consists of fire, support and reserve trenches. Depth varies from 500 to 600 yards
Village
Strong Point

A diagram from Fourth Army Tactical Notes published in May 1917 showing the German defensive scheme. Note that all three defensive lines are indicated and attention is drawn to the incorporation of villages and strongpoints into the system. It is also clear that the second line is only just within field artillery range and the third line system is well outside this range. (Author's collection)

Military Intelligence

For the Germans the question remained: when would the assault be launched? In some areas units found it impossible to get food or water or to relieve men in front-line positions. In other cases dugouts collapsed under the bombardment and the battlefield looked like a moonscape. If the men of Fourth Army felt that Z Day would be a surprise to the Germans they were to be bitterly disappointed. German observers had already calculated that the 14 balloons they could count indicated 14 divisions and that the intensity of the bombardment further indicated where the blow would fall. However, the actual date remained a problem. Some information came from agents and still more from aerial reconnaissance, as the build-up of guns and stores indicated that the offensive was pending. Yet a message from XIV Reserve Corps, on 26 June, after the preliminary bombardment had commenced, indicated that the main attack would be on 27 June. This information came from a wounded British prisoner who was left behind in no man's land when the wiring party he was with was fired upon. The prisoner also offered additional detail, indicating that the attack would take place on a 30-mile (48km) front from Gommecourt running south. He even stated that the bombardment would last four or five days. A few days later, prisoners from a disastrous raid by the 29th Division and a deserter from the same division provided more detail and confirmation of the date. The information about the timing of the attack was meaningless, as the two-day extension to the artillery programme meant that Z Day had been moved. However, the final detail was provided by

FRONT OF THE BEF ON THE EVE OF THE SOMME

Howitzer shells and boxes of fuses are stacked in one of the vast ammunition dumps necessary to support the 'Big Push'. The light railway track used to transport the ammunition from the dump to the guns is apparent, but even with the help of this technology, feeding the guns was back-breaking work. (IWM Q29974)

German listening stations, which were able to hear British telephone messages (which were often not in code) up to 3,000 yards (2,742m) away. As a result, in the early hours of 1 July an intercept of a message from 34th Division made it clear that the offensive was imminent.

FRENCH PLANS

Maréchal Joffre had initially planned for the battle on the Somme to be part of a larger campaign that had the objecuve of forcing German forces back by means of a battle of attrition. Once Falkenhayn seized the initiative by attacking Verdun, plans for the Somme were gradually scaled down so that it was a single French army that would attack on 1 July. Ultimately Joffre was able to commit fewer men to the initial phase of the battle than the British. Initially the plan proposed by Général Foch had been to wait a matter of days after the British assault before mounting his own attack, but pressure from Haig meant that this plan was abandoned. As an alternative, one corps of the French Sixth Army, commanded by Général Fayolle, was placed north of the Somme to protect the flank of the remaining two corps that were to operate on the southern bank of the river. North of the Somme, Fayolle deployed XX 'Iron Corps', which had an impressive battlefield reputation. This corps was to attack at the same time as the British, 7.30am. South of the river the I Colonial Corps on the left and XXXV Corps on the right were to wait two more hours before making their own independent attack. A fourth corps, II, was kept in reserve. All this preparation by the French on the Somme, specifically the preliminary artillery bombardment, could not go unnoticed by the Germans. However, their own intelligence had suggested that the French, worn down by Verdun, were incapable of mounting an attack, and so the preparations were interpreted as a feint and not a threat. Ironically, if intelligence failings by the British meant that surprise was not to be achieved by the BEF, it was the failure of the German high command to foresee the potential for a French attack astride the Somme that helped their enemy to be so successful.

1 JULY 1916

To make the operations of 1 July easier to understand this chapter has been organized into a series of separate sections, each dealing with a corps sector and its objectives. These sectors run from north to south and match the breakdown of the forces given in the Orders of Battle. Emphasis has been placed on the experience of Third and Fourth Armies, but as this was an Allied operation the French operations on both sides of the River Somme have also been included.

THIRD ARMY: GOMMECOURT

VII Corps

A gap of 2 miles (3.2km) existed between the units of Third Army (General Sir Edmund Allenby) that attacked at Gommecourt and those of Fourth Army (Rawlinson) north of Serre. The intention of the operation at Gommecourt, the most northern of those planned for Z Day, was to provide a diversion, drawing artillery fire and reinforcements away from the attacks in the south. At the same time it was hoped that as an additional bonus the operation could remove a bulge in the German line that projected into British lines. Two Territorial divisions from VII Corps, commanded by Lieutenant-General Snow, were selected for this task. The left hand, and hence most northerly of the divisions, was the 46th (North Midland) whilst the other was the 56th (London).

Men of the 2nd Seaforth Highlanders, 4th Division, with their distinctive 'C' battle patches, wait for the order to advance as a senior NCO takes the roll-call near White City. In the third wave, they moved into the attack at about 9.00am. The lack of smiles for the official photographer betrays the men's last-minute concerns about what will happen when they 'hop the bags'. (IWM 746)

THE SOMME AT 7.30AM, 1 JULY

A typical 18-pounder gun emplacement on the Somme. This weapon made up half the artillery involved in the battle, although the projectile had a bursting charge of less than 1lb (0.45kg) of explosive and was hardly devastating against trenches or dugouts. Note the fired brass cases on the right awaiting collection for recycling and the soldiers' tans limited to face and arms. (IWM Q4066)

The plan called for their attacks to be delivered into the flanks of the salient and then to converge at the rear of Gommecourt village. The artillery programme called for this position to be reached at 8.00am. The attack was seen as a means of 'pinching out' the formidable German defences, which enjoyed the benefit of favourable ground with good observation and concealment in woodland. The 2,000-yard (1,828m) gap between the two divisions was to be screened by units that were not to attack, but the wire would be cut and smoke used as elsewhere on this front. The defences in the salient, which were already formidable, had been strengthened due to German observations of the enemy activity. In addition to the fixed defences, the garrison of the salient was reinforced to three regiments, nine battalions of infantry. This was part of the British plan, as the intention was to draw German resources away from the more important action further south both before the battle and on Z Day. In late June General Snow, commander of VII Corps, told Haig with no little pride that 'They know we are coming all right'.

46th and 56th Divisions

Starting in mid-May, when they took over the sector, the men of both divisions committed to the attack engaged in training on the same lines as that employed by Fourth Army, while labouring to prepare for Z Day. At night they dug assembly trenches to reduce the width of no man's land and to cut gaps in the formidable barbed-wire defences that had survived in the 46th Division's line of attack. Wet weather made these and numerous other labour tasks more difficult, and few of the men who were to make the attack had a full night's sleep in the week before 1 July. The labour shortage was so acute that the plan to employ gas was abandoned, as there were insufficient men to move the cylinders. Smoke was, however, available and it was under the protection of a heavy smokescreen that the 46th Division made its assault on a frontage of two brigades, the 137th and 139th. What followed was a tragedy, with only

An 8in howitzer at the moment of firing. The gunner has just pulled the lanyard attached to the breech and the weapon is recoiling as the 200lb (91kg) high-explosive shell heads for the target. Note that the weapon is under a camouflage net, although the dust and smoke of firing would be difficult to hide. (IWM Q569)

the heroism of groups of men and a few individuals to redeem the events of the morning.

The smokescreen began to develop around 7.15am, and by 7.30am the smoke was so thick in front of the 46th Division's assembly trenches that when they attacked they had great difficulty in maintaining direction. Worse still, despite the careful preparation, the wire was found to be largely uncut and even those lanes that had been made were difficult to spot. German troops manned their parapets even before zero hour, as their observers had seen groups of British troops moving to their assault positions. British troops kept in support were unable to fire for fear of hitting their own men and as the bombardment moved forward the men of both brigades were left isolated. The British artillery fire, which amounted to a virtual creeping barrage, moved forward strictly following the timetable of lifts as the infantry fell in behind. For the German defenders there were no inhibitions about firing into no man's land even if no targets were visible. Artillery, machine guns and rifles poured heavy fire into the British and the result was that only a few members of 137th Brigade on the right of the 46th Division made it into the German front line. The 139th did a little better and put men into the German trenches, but they lacked the numbers required to go further and instead tried to consolidate their positions. However, they discovered that the German bombardment falling in no man's land left them cut off from their reinforcements and increasingly vulnerable to counter-attacks, which developed rapidly. Throughout the day these men held onto the lodgement they had captured, anxiously awaiting relief.

To the south a different story was developing, as the 56th Division made its attack. On this frontage the battalions of the 168th and 169th Brigades were more successful, starting their attack from closer to the German front line and having the benefit of surprise. They also made use of the smoke and found, to their relief, that the barbed wire was well cut. This was partly due to the use of Bangalore Torpedoes, tubes stuffed with explosives, which had been used to blow additional gaps in the wire on the previous night. In some areas the German defenders were too

slow in emerging from their dugouts and were captured. Over 300 unwounded prisoners were sent to the rear, but when a number were killed by their own shelling the remainder were kept in numerous dugouts. Other German soldiers still in uncaptured dugouts were bypassed by the Londoners and emerged to fire on the British from the rear or to obstruct reinforcements. Despite the confusion in their wake, the men of the 56th Division pushed on through the first two lines of trenches, penetrating well into the enemy position. By now the division had reached many of its objectives, but was finding that resistance increased when they attempted to advance further. This resistance was centred on Kern Redoubt, which the Germans had built for the attack's very eventuality. Despite the valour of a group of men from the division who fought through the German lines to effect the anticipated junction with men of the 46th, they were to be disappointed. No members of that division were to reach Gommecourt other than as prisoners

It was here, as on the frontage of their sister division, that the real threat to the gains the division had achieved began to develop. It was German artillery fire, which was heavy and more effective on this sector than any other part of the front, that effectively barred British troops from crossing no man's land. Reinforcements and much-needed ammunition, specifically grenades, could not be brought forward. This meant that the men of the two brigades found themselves looking over their shoulders for assistance that would never arrive. Worse still, the failure of the attack by the 46th Division meant that the Germans could turn their full attention on the men of the 56th, who had a toe-hold in the salient, and effective counter-attacks were soon directed at the groups of British soldiers. Additionally, with no target on their flanks the German artillery was able to concentrate on the men holding out in the positions they had captured in the German trench lines. Secondary attacks were proposed on the front of 46th Division in support of the men in the salient, but shortage of ammunition, general confusion and the collapse of communications meant these did not take place. The British troops were gradually driven out of the German position. The last of these men had been pushed back towards the British lines by dusk. Casualties amounted to 4,300 in the 56th Division and 2,455 for the 46th Division. The 46th's casualty count is the lowest of any of the divisions that attacked on 1 July and in part reflects the impossibility of the task they faced. Another factor was the decision taken by the divisional commander, Major-General Hon. E.J. Montague-Stuart-Wortley, to call off the attacks planned for later in the day when it became all too apparent that these would be futile.

SERRE AND BEAUMONT HAMEL

VIII Corps

The topography of this area clearly favoured the defenders. The German trench line ran on the spurs of high ground on which sat the village of Serre, across Redan Ridge and then in front of the village of Beaumont Hamel. It ended on the banks of the River Ancre at Beaucourt in the south and curved over Redan Ridge towards Serre in the north. This terrain offered poor observation for the British and had

THE ATTACK ON THE HEIDENKOPF, APPROXIMATELY 7.45AM (pages 46–47)

This viewpoint is behind the German main trench line, the Bayern Graben, south of the village of Serre, on the ridge looking towards the British advance and across the defensive outwork, the Heidenkopf, on the forward slope. The German commander in this area realized that the Heidenkopf was useful to enfilade an attack, but also vulnerable. It was therefore decided that a small garrison of pioneers with a machine gun would be left as a rearguard. Their orders were to detonate four large defensive mines, which were just in front of the forward parapet when the attack began. This plan worked insofar as the mines took a toll of the British attackers, but when the machine gun jammed the garrison was forced to flee down a tunnel called Stollen Two back towards the main trench. The German defences in this area had been badly damaged by the shelling with whole sections of the trenches collapsed (1) **and the wire in some places cut to fragments, whereas elsewhere it was still a formidable obstacle** (2). **The chalk and debris from the four mines have fallen to earth, largely destroying and filling the trenches on the front face of the Heidenkopf; the mines have also left craters** (3). **The British had wisely decided not to mount a frontal assault on the Heidenkopf and instead went up the flanks and attacked the Bayern Graben to get behind the defenders** (4). **In this area the British are from the 1st Battalion Rifle Brigade. The commander of the party of pioneers in the Heidenkopf, Lieutenant Eitel** (5), **has emerged from Stollen Two only to be killed in the main trench by the British, who had already reached this point. The other members of his party were never seen again. This could be the result of the work of British bombers; a grenade has been thrown into a dugout entrance** (6). **The effect is dramatic, but ineffectual, as the depth of the system and the provision of multiple entrances means that survivors can still emerge behind successful British troops as they venture into the German trench system. One limitation was the number of grenades that could be carried and the bomber has improvised by using a spare haversack. As elsewhere on the Somme front, members of the garrison, the 121st Reserve Regiment, have responded quickly to the attack. Flares and telephone calls have informed the artillery that the attack has commenced. In response to this, a bombardment fired by the 26th Reserve Artillery Regiment is falling in no man's land, cutting off the advanced members of the British attackers from their reinforcements** (7). **At the same time, in keeping with German tactical doctrine, small groups of infantry are using a variety of weapons, especially grenades, in an effort to counter-attack down the line of the trenches** (8). **This leaves men in the open, such as the Lewis gunner** (9), **to be dealt with by their own machine gunners and riflemen on the high ground to the rear. Although small parties of British attackers were able to penetrate past the position shown here and successive waves of troops were thrown into the action, the assault was a failure. By the end of the day German counter-attackers had driven the British out of the Bayern Graben and the Heidenkopf had been recaptured.**

the advantage of areas of 'dead ground' for the Germans against which it was difficult to direct artillery fire. With high ground to the rear of the position, German troops had direct observation well into the British lines. Months of back-breaking toil by the German troops had done much to improve the already favourable position, and the villages of Serre and Beaumont Hamel, and Y Ravine and the dominant Hawthorn Ridge, had been turned into miniature fortresses, each of which would need to be dealt with by the attackers. At the Heidenkopf south of Serre (called the Quadrilateral by the British), the defenders of the 121st Reserve Regiment had realized that the position that jutted forward into no man's land was vulnerable to attack, and four defensive mines were laid in front of the parapet. The intention was for the 'mine field' to be blown as the British closed on the position. In the north, no man's land was up to 500 yards (457m) wide, but around Beaumont Hamel the distance was shorter, in some cases no more than 150 yards (137m).

With these defences to overcome, Lieutenant-General Sir Aylmer Hunter-Weston, commanding VIII Corps, decided to use all but a small part of the four divisions available to him and assault Serre, Redan Ridge and Beaumont Hamel simultaneously. Aware that his most northerly division would form Fourth Army's flank, his plan was that once it had broken into the enemy position it would wheel at right angles to the axis of advance to provide the protection needed for the other two and a half divisions of the corps. The division he chose for this task was the 31st, recruited from the industrial northern towns and cities and with a number of Pals battalions in the order of battle. This was to be the 31st's first battle and the men were optimistic of success. Attempts to tunnel into no man's land were largely unsuccessful, so it was decided that in order to close the distance to be covered in the attack the two brigades should move into no man's land and be in position by 7.20am. At the appointed time the 94th Brigade, on the left, moved off up hill from the line of copses named after the Gospel writers that marked the British front line

31st Division

Almost at once it was clear that the operation was not going to plan. The smoke that it was hoped would screen the flank failed to develop, and despite the sight of the German defensive wire lying largely cut, the attackers found themselves under machine-gun fire within a few minutes of moving off. What followed was confused and bloody. In some places small groups of the attackers reached the German trenches and bitter hand-to-hand fighting began as they tried to advance into the position. One small party of the 11th East Lancashire Regiment reached Serre village, but without reinforcements it was wiped out. On the front of the 93rd Brigade the men advanced into heavy fire and the action lasted about 15 minutes, after which forward movement became impossible. Despite the odds they faced, a group from the 18th Durham Light Infantry reached Pendant Copse nearly 2,000 yards (1,828m) from their starting point. It was all in vain: casualties were so heavy that battalions virtually ceased to exist. The division had lost over 3,600 men and totally failed to achieve its objectives. Critically, as the fighting around Serre ground to a standstill, the German defenders in this area were able to divert their attention to the attack developing south of Serre.

BRITISH FORCES
VIII Corps – Lieutenant-General Sir A.G. Hunter-Weston

29th Division – Major-General H. de B. de Lisle

86th Brigade
1 2nd Royal Fusiliers
1a 4 mortars and 4 Stokes mortars
2 1st Lancashire Fusiliers
3 16th Middlesex
4 1st Royal Dublin Fusiliers

87th Brigade
5 2nd South Wales Borderers
6 1st Border Regiment

88th Brigade
7 1st Royal Newfoundland

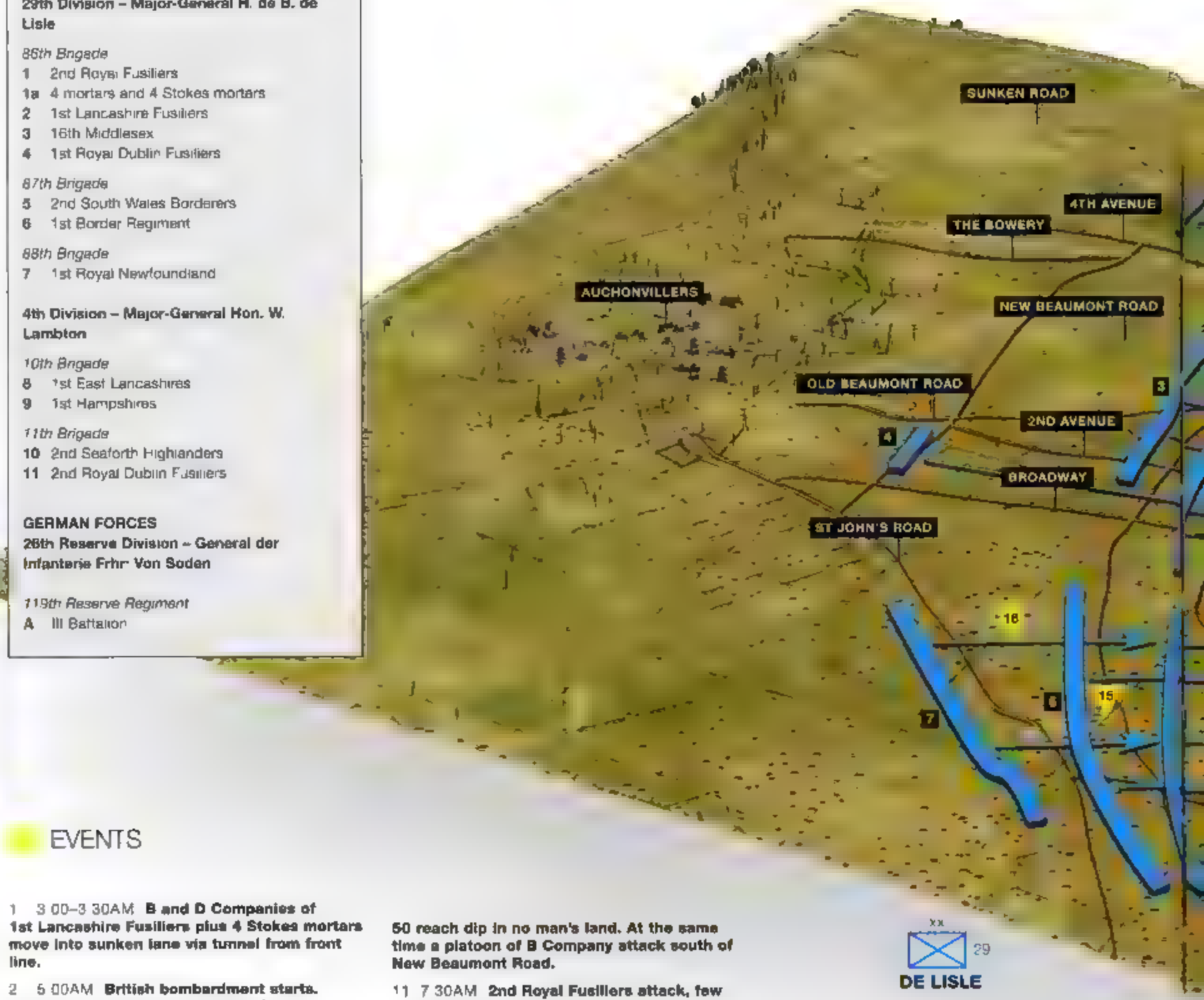
4th Division – Major-General Hon. W. Lambton

10th Brigade
8 1st East Lancashires
9 1st Hampshires

11th Brigade
10 2nd Seaforth Highlanders
11 2nd Royal Dublin Fusiliers

GERMAN FORCES
26th Reserve Division – General der Infanterie Frhr Von Soden

119th Reserve Regiment
A III Battalion



EVENTS

1 3.00–3.30AM **B and D Companies of 1st Lancashire Fusiliers plus 4 Stokes mortars move into sunken lane via tunnel from front line.**

2 5.00AM **British bombardment starts. Maximum shelling around 7.00AM.**

3 7.00AM **Germans begin to shell sunken lane and front line.**

4 7.20AM **40,460lb (18,416kg) of ammonal mine built by 252 Tunnelling Company RE under Hawthorn Redoubt blown.**

5 7.20AM **Two platoons of 2nd Royal Fusiliers together with 4 machine guns and 4 Stokes mortars rush the crater.**

6 7.20AM **Hurricane bombardment by mortars in sunken lane begins.**

7 7.20AM **British heavy bombardment lifts to targets deeper in German position.**

8 7.25AM **German troops from 9th Company of 119th Reserve Regiment counterattack newly formed crater.**

9 7.30AM **1st East Lancashires and 1st Hampshires find wire largely uncut and are halted in no man's land.**

10 7.30AM **B and D Company 1st Lancashire Fusiliers attack and are cut down, only about 50 reach dip in no man's land. At the same time a platoon of B Company attack south of New Beaumont Road.**

11 7.30AM **2nd Royal Fusiliers attack, few reach the crater.**

12 7.30AM **2nd South Wales Borderers head for Y Ravine, few get within 100yds of German front line having been caught by machine-gun fire from the Beaucourt ridge.**

13 7.50AM **2nd Seaforth Highlanders and 2nd Royal Dublin Fusiliers halted by machine guns in no man's land.**

14 8.00AM **16th Middlesex attack, but fewer than 120 men reach the crater.**

15 8.05AM **1st Border Regiment attack from second line trenches and suffer the same fate as South Wales Borderers. C Company of 1st Lancashire Fusiliers lose all but 50 men when trying to reach sunken lane.**

16 9.15AM **1st Royal Newfoundland attack from third line trenches and lose 710 men, few reach no man's land.**

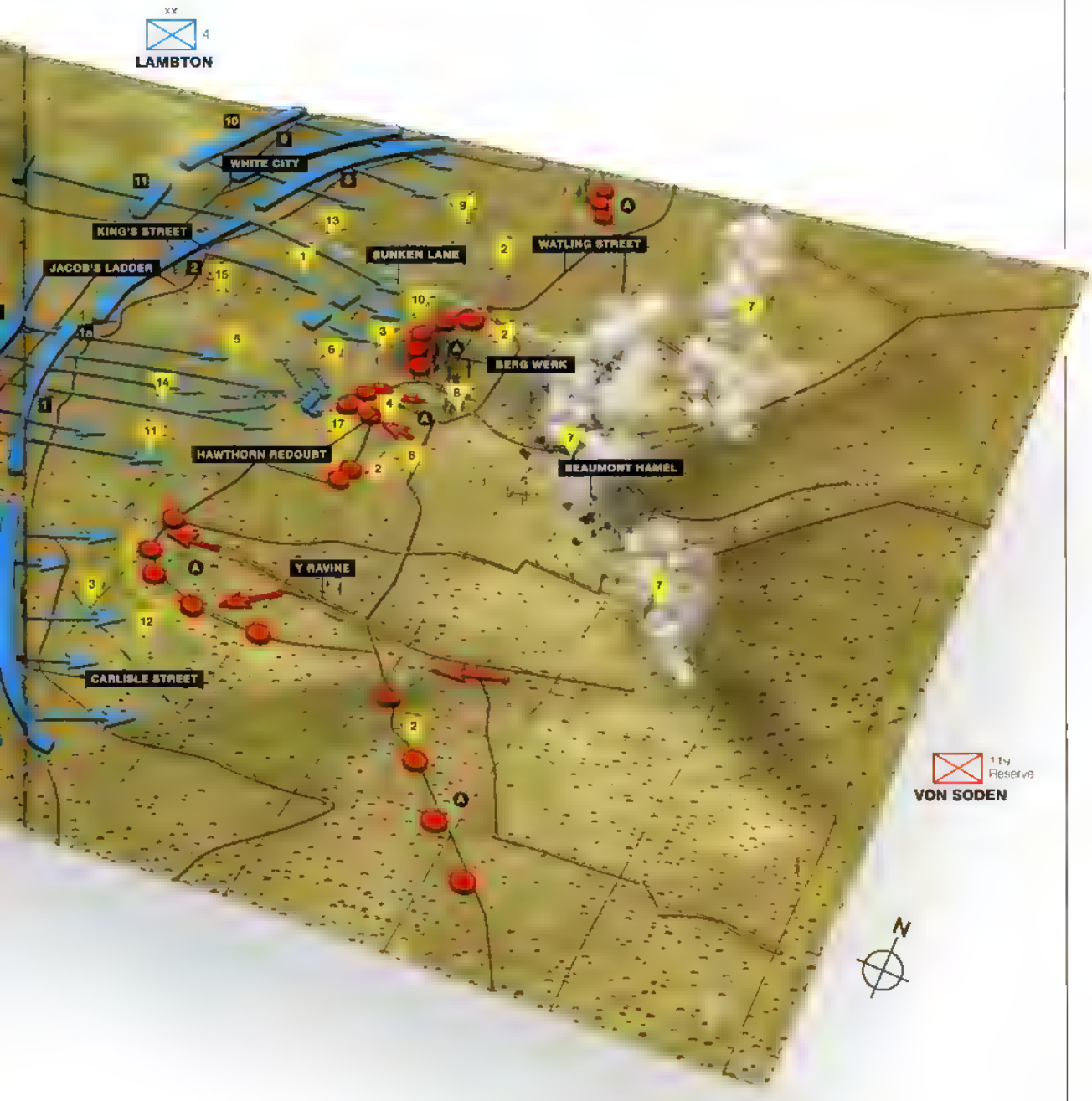
17 APPROX 10.30AM **Under fierce counter-attack and short of ammunition, resistance in Hawthorn Crater collapses and survivors return to British lines.**

THE ASSAULT ON BEAUMONT HAMEL

1 July 1916, attack of British VII Corps, 4th and 29th Divisions, viewed from the south.*

* As the divisional boundaries are outside this view some units have been omitted

Note: Gridlines are shown at intervals of 250 yards (228.6 metres)



British infantry from a support wave rest in the shelter of a communication trench dug into the side of a sunken lane. These men are identifiable as members of the 1st Royal Warwicks, 4th Division, and in common with other men of VIII Corps have triangles of reflective tin attached to their haversacks. Note the highly vulnerable single strand of telephone wire stapled to the trench wall above the heads of the sleeping men. (IWM Q64)

4th Division

To the right of the 31st Division was the 4th Division, a Regular formation, which went into action on a narrow, single-brigade front with the objective on the left being the Heidenkopf and the forward slope of Redan Ridge on the right. As elsewhere that morning, the movement into no man's land by the troops provoked an immediate response from the defenders. The German positions had been heavily damaged by the preliminary bombardment, but the garrison from the 121st Reserve Regiment was able to man their trenches. Here, despite the bombardment, which mainly consisted of 18lb (8kg) shrapnel shells, they commenced firing into the British advance. The fighting that followed was bitter, but in some areas the British troops were successful. The decision had been made to avoid a direct assault on the Heidenkopf and the attacking units outflanked its defences, rapidly breaking into the main German trench line. Despite the blowing of the mines, which killed some British troops, men from the leading battalions established themselves in a position over about 600 yards (548m). However, on the right flank the 1st East Lancashires and second-wave 1st Hampshires found the wire largely uncut and were halted in no man's land.

As a response to the assault, German artillery fire began to fall in no man's land and here, as at Gommecourt, the British troops took heavy casualties from the combined fire of the machine guns on Redan Ridge and increasingly that from Serre. Under fire from three sides and with the British bombardment now falling ineffectually far ahead of the troops it was meant to support, the men in and around the Heidenkopf were in an unenviable position. Reinforced by the second wave, who had taken heavy casualties crossing no man's land, there was little room for manoeuvre, the majority of the senior officers were killed or wounded and there was no method of communicating with the rear. Information from contact patrols of the RFC about the situation was ambiguous, and the decision was taken at about 8.35am to halt the support battalions from the 10th and 12th Brigades. This message reached some units but not others, and following their timetable at 9.30am battalions moved off toward the Heidenkopf to be met by a hurricane of enemy fire. Few reached their objective, which would finally be recaptured by the Germans early the next day.

29th Division

Facing the well-organized defences around Beaumont Hamel was the 29th Division. This was the last of the Regular divisions raised and had received the name 'The Incomparable 29th' for its performance at Gallipoli. The plan of attack that was developed for the 29th employed a high level of military ingenuity and took advantage of the few weaknesses in the German defensive plan. It was recognized that any assault into Beaumont Hamel would be threatened by two features of the defences. On the right was the redoubt on Hawthorn Ridge from which the defenders could fire into the flanks of any attacking troops. It was therefore decided to tunnel from the British lines and lay a mine under this strongpoint. This mine, built by 252 Tunnelling Company, Royal Engineers (RE), and charged with 40,000lb (18,181kg) of explosives, would both destroy the German defences and produce a crater. This feature could then be captured by an assault party, giving an

excellent vantage point for British troops. From here they would be able to dominate both the approaches to the village and the flanking German defences. As an additional measure, it was agreed that the troops who would attack the village would do so not from the British trenches, but from a sunken lane, a feature of no man's land. This tactic would reduce the distance to be covered and have the benefit of surprise. To get the troops into the sunken lane a Russian Sap (shallow tunnel) was constructed, and before dawn B and D Companies of the 1st Lancashire Fusiliers plus four Stokes mortars moved into the sunken lane via the tunnel from the front line. The firing of the mine is the most controversial aspect of the operation on the front of the 29th Division that day. In other areas, the mines were fired at 7.28am, but at Hawthorn Ridge, due to a fear of casualties amongst the attackers, the mine was fired at 7.20am. In addition, the main British barrage then lifted away from the German front line, not only near the mine, but along the entire divisional frontage.

In this area the British bombardment had caused a great deal of damage to the defences. A German observer reported that:

> The preliminary bombardment was quite destructive, in particular the 'ball' mines [the 2in spherical British 'plum puddings']. On the right wing of the regiment where the hillside descended toward Auchonvillers the dugouts were crushed, craters appeared 3 meters deep and 4–5 meters across. The wire was badly damaged and the trenches were levelled in many places. Many dugout entrances across the line were damaged and blocked requiring work to keep them open.

However, as the moment for the attack drew closer:

> Everything was made battle ready, everything was strapped on, the rifle was grasped and hand-grenades were in the right place. The officers and other ranks waited on the stairways and in the dugouts ready for the defence for the moment when the enemy fire was transferred to the rear.

When the attack came 'telephone and red light balls called for help from the artillery. The infantry and machine-gun fire mowed down the attackers so that they soon hesitated and threw themselves down.'

Initially the operation by the 86th Brigade went reasonably well, and although some German shells fell around the sunken lane there was little evidence that the defences were on a high state of alert. Promptly at 7.20am the mine was fired and this movement was captured on film by Geoffrey Malins, the official cinematographer in this area. As the debris settled back, two platoons of the 2nd Royal Fusiliers together with four machine guns and four Stokes mortars rushed the crater. At the same time the mortars in the sunken lane began a hurricane bombardment of the German wire and forward trenches. At 7.30am, with British shelling moving to targets deeper in the German lines, the main attack began. Once again, despite all the careful preparation and rehearsal, the plans began to fail almost at once. Within a few moments of the mine being blown, members of the German garrison, recognizing the significance of

In a still from the film shot by Malins, members of the 1st Battalion Lancashire Fusiliers fix bayonets in 'King Street', a trench close to Beaumont Hamel. The diamond-shaped insignia below the collar of the lieutenant, who is wearing service dress and looking down the trench identified as 'firing line', identifies the men of C Company. This company would be in the second wave of the attack and suffer heavy casualties trying to reach the sunken lane in no man's land. (IWM Q774)

This close-up from the film shot in King Street shows a lieutenant wearing an other rank's uniform and web equipment, a common practice on Z Day. He is leading his men to a trench that would give the direction of attack. Note the load carried by the other ranks, including shovels, bandoliers and the ground sheet rolled and tied to the rear of the waistbelt. The tin triangle carried by men of the 29th Division is clear and the yellow fusilier's hackle shows as a dark patch on the left of the helmet. (IWM Q79491)

the feature, rushed to capture the crater. Heavy fire from the flanks meant that although the mortars and machine guns with the party from the Royal Fusiliers reached the near side of the crater, most of the men carrying ammunition were hit. Meanwhile, attacking from the sunken lane B and D Companies of the Lancashire Fusiliers were cut down by fire not only from ahead, but also from the area of the crater. Only about 50 reached the dip in no man's land and were then unable to advance. At the same time, a platoon of B Company attacked south of Beaumont Road and more men from 2nd Royal Fusiliers reached the crater. Subsequently 16th Middlesex attacked, but fewer than 120 men reached the crater. Around 10.30am, under fierce counter-attack and short of ammunition, resistance at Hawthorn Crater collapsed and the survivors returned to British lines with heavy loss of life.

In a still from the film shot by Malins, the explosion of the mine under the Hawthorn Redoubt at Beaumont Hamel at 7.20am is recorded. This would become one of the best-known images of the war. Despite the surprise and destruction, German troops were able to seize the far lip of the crater and dislodge the British attackers later the same morning. (IWM Q754)

This image shows the explosion of the Hawthorn mine a few seconds later than that shown in the Malins still, and from a position well behind British lines. It is likely that this photograph was taken from the third-line position of the 4th Division, which is awaiting the order to advance. (IWM Q22)

On the right flank, at 7.30am men from the 87th Brigade including the 2nd South Wales Borderers headed for Y Ravine. Only a few got within 100 yards (91m) of the German front line because of heavy fire. On the far right the 1st Inniskilling Fusiliers were more successful and broke into the enemy position, but were driven out by a fierce counter-attack. White flares fired from the German lines suggested that the attack on this front had been completed and in the next hour and a half two waves of men from the supporting brigades went forward to be met by machine-gun and artillery fire. Those who survived hid in the numerous shell holes and awaited darkness to return to their own lines. The most tragic action on this front occurred just after 9.00am. Despite desperate attempts by the brigade commander to stop this movement, the 1st Newfoundland Regiment, who were unable to progress easily through the trenches because they were so clogged with wounded, advanced from third-line trenches and lost 710 men in a matter of

In this dramatic action still from the film shot by Malins, members of the various units that had seized the edge of the German position at Hawthorn Redoubt attempt to escape from the counter-attacks. Some are heading for the cover of the Beaumont road and the British lines to the right-hand edge of the photograph. The up-cast from the mine shows up as a white smudge on the horizon. (IWM Q750)

minutes. Few reached no man's land and most fell in an area within British lines. Despite over-optimistic reports of the British in Serre, Pendant Copse and Y Ravine, the attack of VIII Corps had been a disaster. Hasty plans to reinforce these apparent successes were called off by mid-afternoon and the area around the Heidenkopf was largely abandoned as the survivors gradually filtered back across no man's land. By the end of the day the scale of the disaster that had overtaken the corps was becoming clear. A staggering 14,000 men had been lost with nothing to show for it other than shattered bodies.

THIEPVAL

X Corps

As elsewhere, the German defensive position in the Thiepval area had many advantages over a potential attacker. The Germans had selected the ridge overlooking the valley of the River Ancre and their right flank rested on this obstacle. The village of Thiepval was turned into a fortress and the dominating hill between the village and river became the Schwaben Redoubt. Further south, where the German line turned back to take advantage of the ground, a salient sticking out into no man's land had been created and named after the city of Leipzig by the British. For the British, hemmed in with the river to their backs and little room to deploy in the face of the German trenches, there were few positive features to their positions. However, Thiepval wood, with trees to provide cover from observation, had a steep slope providing dead ground against which the Germans could not easily bring their artillery to bear. On the extreme right flank of the corps Authuille wood provided similar natural protection. Elsewhere the British lines were devoid of cover and under direct enemy observation.

X Corps, commanded by Lieutenant-General Sir T.N.L Morland, consisted of two divisions of quite different character. The one selected to attack north of the village and directly towards the Schwaben Redoubt was the 36th (Ulster) Division. The division was created, in part, from the Ulster Volunteer Force, an organization formed in 1912 to resist the imposition, as they saw it, of Home Rule in Ireland. Strongly Protestant, many men were members of the Orange lodges and once transferred to form battalions of existing Irish regiments the division had experienced many disciplinary problems. The men of the 36th saw themselves as loyal to the Crown, but with a different outlook from the majority of the army. By an ironic twist of fate, 1 July was the anniversary of the battle of the Boyne in 1690 in the old style calendar. This great Protestant victory was the most significant date in the Ulster calendar and many of the men supposedly went into action wearing their orange sashes. The second formation in the corps was the 32nd Division of Kitchener's New Army, recruited from the north of England and Glasgow. It combined Kitchener battalions with regulars. Like the 36th Division, this would be its first battle.

36th Division

Following an unusually successful preliminary bombardment, the Ulstermen left the edge of Thiepval wood, where they had been waiting since the previous night. They had formed up in a maze of specially dug assembly trenches and on a two-brigade front headed for the German defences 300–450 yards (274–411m) away up the hill. With the 109th Brigade on the right and the 108th on the left, they found the wire on the forward slope well cut and on the right rapidly broke into the enemy positions. The 108th, split either side of the river, was not as successful as it faced heavy flanking fire from the village of St Pierre Divion to the north. By 8.30am the leading troops of the 109th Brigade had advanced over a mile beyond their start line. In reserve, the 107th Brigade moved forward just after 9.00am to exploit the breakthrough achieved by the leading formation, but ran into enemy artillery fire and at one point, due to the speed of its advance, the British barrage. Despite heavy casualties the men pushed on until halted by flanking fire and increasing German opposition. The division found itself isolated, as the attack on both flanks had failed, but it held on throughout the day, running increasingly short of ammunition and grenades. By 10.30pm that night most of the gains achieved by the Ulstermen had been conceded and the Germans re-occupied many of their positions.

32nd Division

To the south, the day was not so successful for the 32nd Division as for the Ulstermen. On the front of 96th Brigade the contrast could not have been more profound. Here the advance was on the flank of the Ulstermen and the object was Thiepval village. As the men of the Northumberland and Lancashire Fusiliers rose from their trenches they were cut down by fire from the village. A few men angling to the left joined the Ulstermen in the Schwaben Redoubt, but the remainder and their support waves failed to cross no man's land in the face of heavy fire. On the right flank of the division, the 17th Highland Light Infantry crept to within a few yards of the German front line at the Leipzig

Salient. At zero hour they rushed the position to find the bulk of the defenders still in their dugouts. More than 300 prisoners were taken. Unable to penetrate beyond the redoubt, due to heavy machine-gun fire, the men from a variety of units concentrated on consolidation of the position. Elsewhere in this sector the attacks failed in the face of uncut wire and heavy fire. All attempts to reinforce the men in the German positions led to heavy casualties. This was a feature of the attempts by the reserve brigade, the 14th, to reach the Leipzig Redoubt. Some men did get through and by mid-afternoon attempts were made to push on into the German positions, but opposition was too tough and the attacks failed with further loss. By the end of the day the division had a toe-hold in the redoubt, their only reward for a bloody day. Total casualties amounted to over 9,000 men

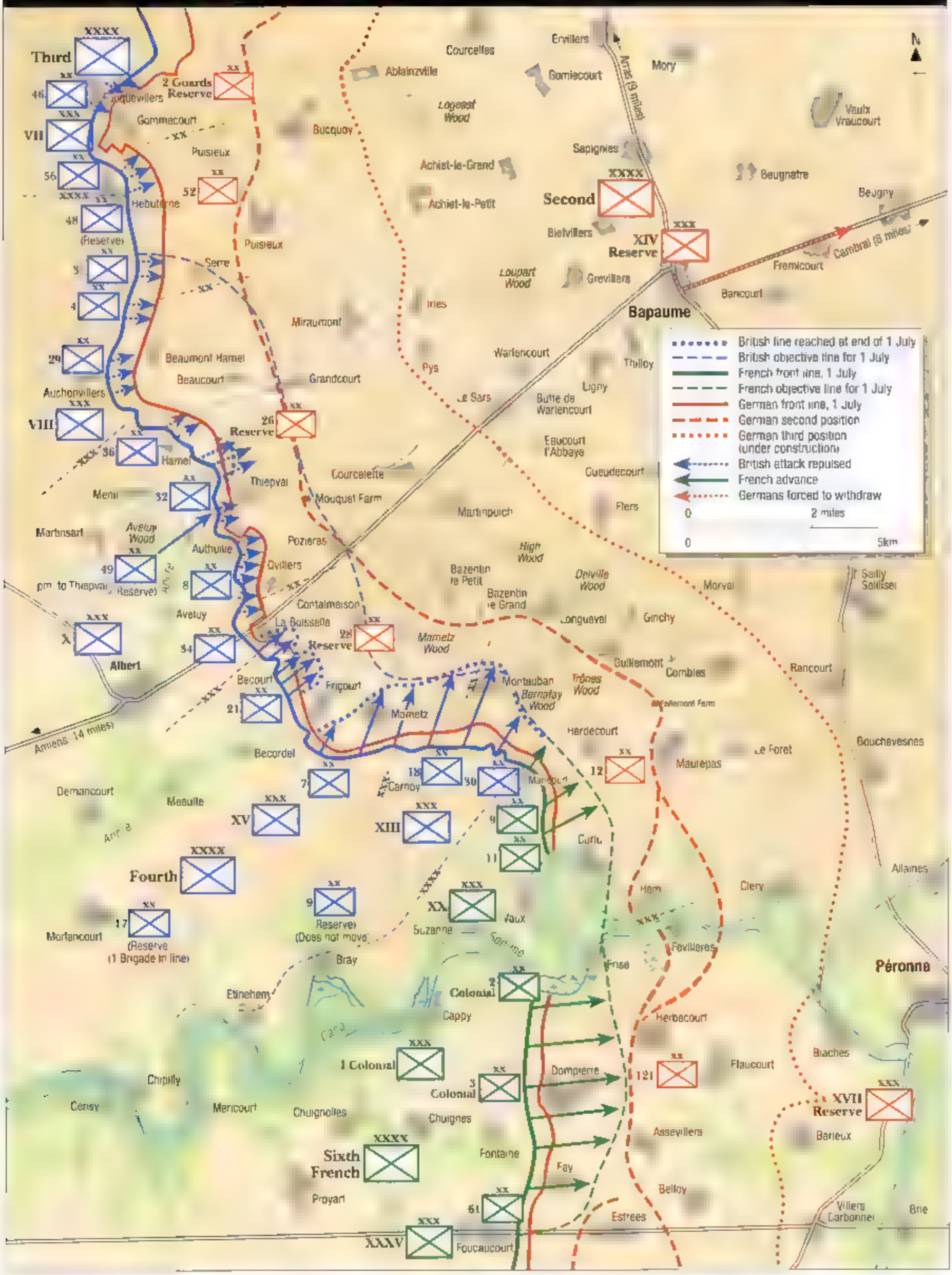
OVILLERS AND LA BOISSELLE

III Corps

The German defences facing III Corps took advantage of the rising ground to the rear of the positions and three fingers of high ground that projected towards the British advance. To the north was a spur of land on which sat the village of Ovillers. In the centre was the ridge on which ran the Roman road from Albert to Bapaume, behind British lines and deep in the German rear. Next to the road was the village of La Boisselle. To the south the ground rose up to the land around Fricourt. The topography produced two valleys, one each side of the main road, named on British maps as 'Mash' and 'Sausage'. The ground in this area was gently undulating and totally devoid of natural cover. Standing in the trenches near La Boisselle, a German soldier had a view across to the Tara-Usna Hills that hid Albert from view and the maze of

The bombardment of La Boisselle viewed from a trench over the British barbed wire. A large-calibre high-explosive shell has just burst, producing a column of black smoke; at the same time small-calibre HE and shrapnel shells are bursting with puffs of grey or white smoke. The number of shells exploding is evidence of the ferocity of the artillery preparations. (IWM Q23)

THE SOMME AT NIGHTFALL, 1 JULY



Men of the Tyneside Irish, 34th Division, photographed as they left their positions on the Tara Hill to move towards La Boisselle. The time is just after 7.30am and despite being well behind the first wave of attackers few of these men were able to advance more than a few hundred yards onto the forward slope before being hit by German machine-gun and artillery fire. (IWM Q52 and Q53)

British trenches that snaked forward to within only 50 yards (46m) of the German lines close to the village, but were up to 800 yards (731m) away elsewhere. Typically the defences consisted of a series of deep, well-constructed trenches and dugouts that incorporated the two villages. To complete the scheme, a series of redoubts had been constructed, capable of all-round defence. To the rear, the Thiepval spur rose up towards Poziéres to the north. This provided the Germans with ideal observation and firing positions.

The III Corps commander, Lieutenant-General W.P. Pulteney, disposed his two divisions, the 8th Division north of the main road and the 34th Division south of this boundary. The two divisions were quite different in character, with the 8th Division being Regular while the 34th

was a New Army formation largely recruited from the north-east, especially Tyneside. Their joint task was to capture the two villages and advance onto the Thiepval spur, threatening the German positions in the north with envelopment. Once established, this dominating position would provide a platform for the next bold thrust for which Haig had optimistically planned.

The preliminary bombardment in the area was hampered by problems with fuses and guns firing short, and well before 1 July it was clear that the destruction of the German defences was far from complete. To deal with specific strongpoints two mines had been constructed. One, 'Y Sap', was intended to destroy a position to the north of the main road in La Boisselle, whilst the second and larger mine was called 'Lochnagar' and was situated to the south of the village. The mines were fired at 7.28am and whilst the dust settled the two divisions left their trenches for the assault

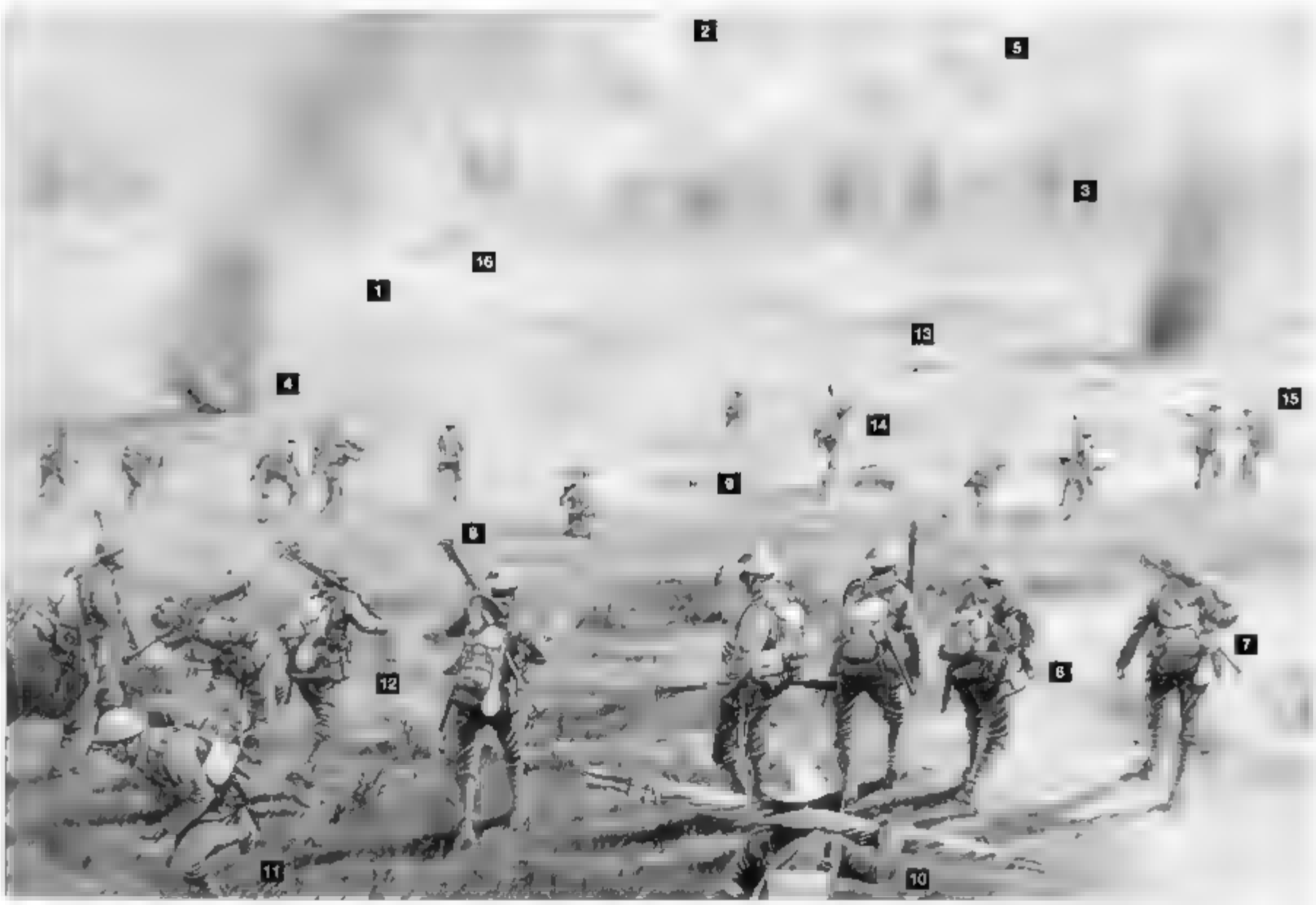
The interior of a German trench close to La Boisselle as captured by the British on 1 July. Note the dead German defender and the level of destruction caused by the preliminary bombardment. British artillery preparations were generally more successful in the southern sector due to the nature of the terrain and number of guns used. (Courtesy of the Director, National Army Museum, London)

8th Division

In the north, the 8th Division faced a long approach and the divisional commander had earlier raised the width of no man's land as a major problem for his troops. The advance took place with all three brigades in line. The 70th Brigade was in the north and in contact with the 32nd Division, 25th Brigade was in the centre with Ovillers as its objective and the 23rd Brigade on the right was to move up Mash Valley to the south of the village. On the left, men of the leading waves managed to get into the German positions in the face of heavy fire, but as the volume of machine-gun fire increased, especially from the area around Thiepval, later waves were unable to get forward across no man's land. The situation in the centre was similar, as the flanking units and men of the 25th Brigade had reached the German lines within half an hour, and an hour later attempted to attack the German second-line positions without success. On the right, 23rd Brigade got to within less than 100 yards (91m) of the trenches in the face of heavy and sustained fire from both villages. Despite this fire, a few men got into the German front line and hung on for two hours before being driven out in a counter-attack.

34th Division

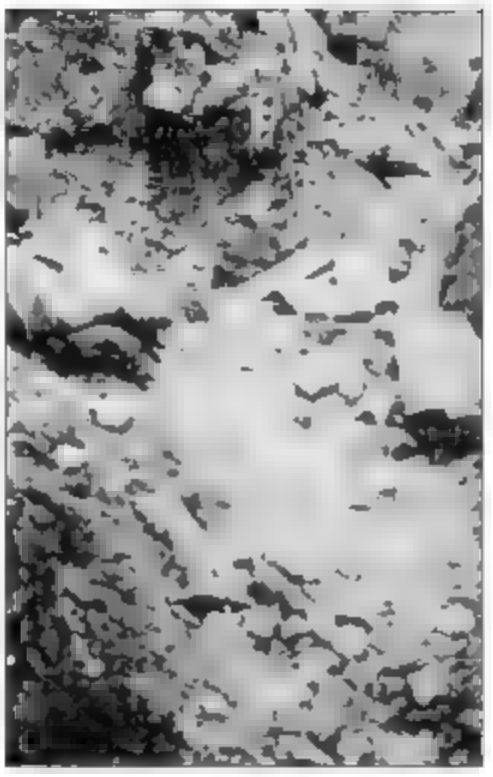
South of La Boisselle, the 34th Division attacked with all three brigades moving off at virtually the same time, but from positions that varied from the front line for the 102nd and 101st Brigades, to the 103rd Brigade that left the cover of the Tara and Usna hills at 7.35am. Four columns of men moved forward as dots against a green and white background towards the German defences, at the centre of which was the newly created crater of the Lochnagar mine. With no British surprise achieved, other than the damage caused by the mine explosions, German response was swift. On the left the 102nd Brigade, Tyneside Scottish, was given the task of passing to both sides of La Boisselle; the 20th and 23rd Battalions of Northumberland Fusiliers managed to reach Y Sap crater and a few on the far left got to the rear of the village before being driven back. On the right, two further battalions of the same regiment captured Lochnagar crater and moved well into the German second line before being halted by increasing opposition, including accurate machine-gun fire. The 101st Brigade



THE ATTACK ON LA BOISSELLE, APPROXIMATELY 7.35AM
(pages 62–63)

A dominating feature of this scene is the white chalk crater formed by the explosion of the Lochnagar mine, one of the two large offensive mines fired by the British at 7.28am (1). Flying over La Boisselle is an aircraft of the RFC piloted by Lieutenant C.A. Lewis, who described the column of earth and debris reaching nearly 4,000ft (1,219m) before falling back to earth, leaving a broad chalk apron on all sides (2). With the assault underway, the British artillery bombardment has moved to targets in the German second and third lines (3). Here, as elsewhere on the front that day, German response is immediate. Red signal flares are arcing up into the sky and the response from the artillery is rapid. The first shells are crashing into no man's land (4) and dirty smoke clouds indicate bursting shrapnel shells (5). These are all directed at the advancing infantry from the 10th Lincolnshire, a New Army battalion, who are heading for the German line from their jumping-off trenches. The men are wearing the second-rate 1914-pattern leather equipment (6) that was issued to many of the New Army units rather than the superior, but more difficult to produce, 1908 web equipment. The men are heavily laden and have rolled up their ground sheets and attached them to the rear of their waist belts to give more space for rations carried in their haversacks. In addition to personal equipment, ammunition and weapons, the men carry shovels, pick axes and sandbags to reinforce the positions they capture (7). Some have wire cutters attached to their rifles and all have fixed bayonets (8). Advancing in artillery formation with wide spaces between the men to reduce casualties, the main wave of attackers is preceded by a line of bombers and Lewis gunners. They have already taken casualties from artillery and small-arms fire (9) and bunching is occurring when obstacles such as uncut barbed wire and craters are encountered. Following in the rear of the wave of attackers is one of the stretcher bearers, wearing his SB armband. Together with his partner, he will attempt to dress the wounds of men who are hit (10). Then they will either direct them to walk to the aid post established in the British front line, or take them there on a stretcher. Walking wounded will have to make their own way to the rear, having applied their field dressing, which is sewn in their tunics (11). Tell-tale spurts of dust and foliage indicate that machine guns have come into action in the German rear area on the ridge behind the village (12). German fire discipline is so good that some of these weapons are engaging targets in the British third wave who are just leaving the cover of the Tara hill over half a mile behind the men shown here. At the same time German defenders in the front line are putting up some resistance (13). Small groups of soldiers are hidden in shell holes in no man's land and are having to be attacked by bombers (14) who are able to get within range under cover of Lewis guns firing from the flank (15). Despite the stunning effect of the mine explosion in their line, the German defenders are already rushing to capture the dominating raised lips of the crater (16) according to their training. They will be aware that the mine is still potentially deadly because poisonous fumes from the explosion will linger in the crater for hours to come. Despite their resistance, the Germans in this area will be overcome and by nightfall the crater, and an area of German lines behind, will be in British hands.

advanced on a narrow front and had a wide section of no man's land to cross. Within ten minutes, the leading battalions in the brigade had suffered 80 per cent casualties. Despite these losses, the units pushed on and the battalions on the right flank, who were in contact with 21st Division, were able to penetrate deep into the German positions. On the left the attack was less successful, coming under heavy fire, and when the Royal Scots tried to storm Sausage Redoubt, at the head of the valley, they were driven back by a German flamethrower. A few men managed to reach Lochnagar crater on the left and hung on, and men from three battalions helped to consolidate this position. As the men of 103rd Brigade started their advance down Sausage Valley, leaving their positions on Tara hill, they immediately came under long-range machine-gun fire. Within minutes casualties mounted and although a few men reached the forward British lines and others reached no man's land, the majority of the brigade were either casualties or pinned down by enemy fire. By 10.00am, virtually all movement had stopped, and with the situation confused the divisional commander decided that nothing further would be attempted until nightfall, when men from the 19th Division would relieve the attacking divisions. Casualties in the corps had amounted to over 11,000 with little to show for these losses other than the two areas of German line that remained in British hands.



A German trench in La Boisselle captured by the British on 1 July. Of note are the pre-cut timber boards used to support mine galleries and dugout entrances, which were a feature of the German defensive system. (Courtesy of the Director, National Army Museum, London)

FRICOURT AND MAMETZ

XV Corps

This salient saw the German line turn almost at a right angle to itself, changing from a north–south axis in front of Fricourt to one that was east–west at Mametz. Both villages sat on spurs of land separated by the Willow Stream that ran behind Fricourt village to the east. The strength

The British bombardment of Fricourt. The German trenches show up as clear white stripes on the hillside and smoke drifts away from a shell explosion. Contrast the level of destruction in the German lines with the trees in full leaf behind the British front line. The artillery preparation in this area was highly successful. (IWM Q114)

of the German positions here lay in the extensive trench system and the villages, which were exceptionally well fortified. On 1 July there was little artillery opposition as, like elsewhere south of La Boisselle, the Allied artillery had inflicted a good deal of damage on an already weak German artillery force. The principal opposition came from numerous machine-gun positions, which in many cases were heavily dug-in and mutually supporting.

XV Corps, commanded by Lieutenant-General H.S. Horne, consisted of the standard mix of New Army and Regular divisions, in this case the 21st Division which was to out-flank Fricourt from the north, and the 7th Division, with Mametz as its objective, which was to link up with the 21st Division to the rear of Fricourt, forcing its surrender without a direct assault. The bombardment began, as elsewhere on the British front, at 6.25am, but this was followed by the release of gas at 7.15am in the German centre, where it was proposed that the British units would wait until a favourable opportunity offered before commencing their attack. The gas was followed at 7.26am by the release of smoke and two minutes later by the firing of three large mines west of Fricourt and other smaller mines elsewhere. The artillery laid down a barrage in front of the infantry and provided for a series of 'lifts' ahead of their advance. This variation of the 'creeping barrage' started on the German front line and did not cover the infantry advance across no man's land.

64th Brigade

At 7.30am when the men of the 64th Brigade on the left of the 21st Division moved into the attack, they did so from no man's land, having crawled into position during the last few minutes of the bombardment. The result was that, despite machine-gun fire from La Boisselle, the two leading battalions with their supporting units close behind got into the enemy front line and pushed deep into the enemy position. Later waves would not be so fortunate, and heavy casualties were inflicted on the

Smoke from the British bombardment rises from the German positions as men of the 7th Division attack near Mametz. The individual infantrymen stand out as black dots against the white chalk of the trench lines. The ominous grey/white cloud is the distinctive mark of a shrapnel shell bursting above the attackers' heads. (IWM Q89)

battalions that followed. By 8.45am the brigade was on its objective and awaiting support from 63rd Brigade to the south. This brigade was not so fortunate as its sister unit and although it attempted the tactic of sending two companies out to crawl into no man's land, the men were forced back by enemy fire. As a result the main attack, which began shortly before zero hour, immediately met heavy resistance. Despite this some elements of the brigade persevered and with mounting casualties they penetrated into the German front and support lines. A second wave at 8.40am came forward to support this initial success, but under heavy fire from Fricourt wood, immediately behind the village, the attack on the right faltered. On the left the brigade was able to link up with the 63rd Brigade and the 34th Division beyond. By 3.45pm both formations were digging in, having penetrated the enemy defences to a depth of 1,000 yards (941m).

50th Brigade

To the south of 63rd Brigade, and facing the three mines in the position called 'The Tambour' in front of Fricourt, was 50th Brigade, which was attached to the 21st Division from 17th (Northern) Division. Here two companies of the 7th East Yorkshires attacked with the intention of passing to the north of the mine craters, while another battalion of the brigade masked the village. The German defenders both in the area of The Tambour and Fricourt were on the alert and although a few men pushed into the edge of the village, they were driven out by nightfall.

7th Division

The 7th Division had prepared four Russian Saps to close the distance between the British and German front lines and it was largely due to these that the assault waves managed to break into the German positions opposite. The attack was delivered with the 22nd Brigade on the left, the 20th in the centre and the 91st on the right. On the left progress was slow, and although the front line was overwhelmed, only patrols were able to get beyond the German support trenches. On the front of the 20th Brigade the contrast was remarkable – although they suffered heavy casualties in no man's land, by 7.45am they had units on the edge of Mametz. Opposition in this area was of variable quality and sporadic. As a result the advance was gradual but steady, and it would not be until around 4.00pm that Mametz village was cleared and early evening before a firm front had been established facing the Willow Stream.

91st Brigade

On the extreme right of the 7th Division, 91st Brigade crossed the relatively narrow stretch of no man's land, although under heavy fire. They were able to penetrate rapidly and by 8.15am were the most advanced of all the troops in the division. However, with the successful men of the 18th Division on their right flank, after a pause to bring forward reinforcements and reorganize, a final push was made just after 2.00pm that threatened the rear of Mametz and helped to lead to the collapse of German resistance in the village. The brigade had covered over 2,500 yards (2,285m) in the advance and now were in a position to threaten Fricourt from the rear. Altogether the corps had captured over 1,600 prisoners, but had suffered 8,000 casualties.

MONTAUBAN

XIII Corps

By comparison with other sectors of the Somme front, the troops who attacked at Montauban had numerous factors in their favour. They were about to advance with the French XX Corps on their right flank and it was clear from early in the preliminary bombardment that the additional weight of fire provided by the French artillery had been highly effective. The German artillery in this area was badly handled and the combination of good aerial reconnaissance, which spotted the enemy guns, and the number and calibre of the Allied guns meant that few German batteries were still in action in this sector on 1 July. Raids during the days preceding the attack had shown that the wire was well cut and German defences comprehensively wrecked. Only a few, especially deep dugouts survived the bombardment and a German headquarters in Glatz Redoubt was totally destroyed by a projectile from a French heavy mortar. Worse still for the defenders, a relief of the garrison by recently arrived Bavarian units was in progress on the night of 29–30 June. As a result, when the assault was launched many German soldiers were either confused or simply lost.

In this area the topography did not provide the Germans with the good observation positions offered further north, and to achieve weight of fire the trenches were close together, providing a better target for Allied artillery. Perhaps the most critical factor, one that was to ensure success, was the standard of the troops in the two British infantry divisions involved. The 18th Division was a Kitchener unit recruited from London and the south-east of England. It lacked the Pals character of its sister unit, the 30th Division, which was raised largely from the cities of Liverpool and Manchester. However, it had as its commander Major-General Ivor Maxse, a brilliant trainer of soldiers. He had turned the unpromising raw material of 1914 into one of the best-trained divisions in the BEF. Maxse was also an innovator, prepared to employ effective techniques such as the creeping barrage, but at the same time sceptical about the over emphasis, common in the BEF, on the employment of grenades. He trained his men to avoid being drawn into 'bombing duels' that were often inconclusive, and instead to use the bayonet and small arms to advance on the surface, if necessary getting behind opponents and outflanking their positions. His methods were not without risk to the troops involved, but he considered these worth taking if the objective was to be captured.

It was decided by the corps commander, Lieutenant-General Congreve VC, to employ one of the first creeping barrages. This curtain of shells falling at a distance ahead of the attacking troops prevented the enemy garrison from firing until the British were close to their trenches. A final rush onto the defences by the attackers usually found the German soldiers either still in the remaining dugouts or only too willing to surrender. The reason for this behaviour can be found in a German description of conditions close to Carnoy: 'two thirds of the dugout entrances were buried in most areas by the plum pudding mines and became unusable'. This destruction forced the surviving men to occupy the few remaining dugouts, resulting in an uneven occupation of the front with large sections unmanned. Telephone lines were destroyed

and wire obstacles were swept away. 'The trenches had been levelled completely on wide tracts. No possibility existed for repair work as this would have only resulted in further senseless losses .. '

XIII Corps attacked with the 18th Division on the left and the 30th Division on the right.

30th Division

The 30th Division was on the boundary of Fourth Army, and when they attacked Colonel Fairfax from 17th King's went forward arm in arm with Commandant Le Petit from the 153rd Infantry Regiment. In this area hurricane bombardment of German positions began at 6.25am and by 7.30pm, with the wire cut and the enemy thoroughly shaken, the troops went forward behind the barrage. On the front of 30th Division the 89th Brigade found little resistance from the enemy and by 8.35am, having linked up with the French, had entered Glatz Redoubt and taken other strongpoints. On the left, 21st Brigade went forward so quickly that the men had to pause to prevent walking into their own barrage. By 8.35am they had met men from 89th Brigade and opened the way for the assault on Montauban by 90th Brigade. This was achieved under cover of a smokescreen and by 11.00am the village was in British hands. The only occupant appeared to be a fox.

Pressing on beyond the village the 16th Manchesters captured the first field guns of the day. By midday that 89th Brigade had seized a flanking position in the brickworks and the troops were consolidating the positions, secure in the knowledge that they had taken all of their objectives: the enemy had been pushed back to a depth of over 1,500 yards (1,371m) on a broad front and 500 prisoners taken. The reasons for the success are not difficult to establish. When the attack occurred the British were able to overrun the first trenches due to a lack of wire. Because of command problems and general confusion caused by the effective bombardment, the German troops were not evenly distributed. This meant that the small pockets of men were surrounded easily and captured. The men who remained did come out and fight as best they could, but the defence was not co-ordinated enough to stop the attack.

Flame and oily smoke billow from a British 'flame projector' during a demonstration. The *Flammenwerfer* was originally used by the German Army near Hooge in the Ypres Salient in 1915, but a British version of this horrifying weapon was soon available. One of these weapons was used on the front of the 18th Division near Montauban with good results for the attackers. (IWM Q14936)

GERMAN FORCES

28th Reserve Infantry Division – Generalleutnant von Hahn

A Third Battalion, 109th Reserve Infantry Regiment

12th Infantry Division – Generalleutnant de [redacted]

B 62nd Reserve Infantry Regiment
C Elements of 23rd Infantry Regiment in process of relieving 109th Infantry Regiment at the time of the attack.
D Elements of 62nd Reserve Infantry Regiment, Pioneers and Artillery

BRITISH FORCES

XIII Corps – Lieutenant-General W.N. Congreve VC

18th Division – Major-General F.I. Maxse

54th Brigade
1 11th Royal Fusiliers
2 7th Bedfordshires
3 6th Northampton (A Company)
4 12th Middlesex

53rd Brigade
5 8th Norfolks
6 6th Royal Berkshires
7 10th Essex
8 8th Suffolks

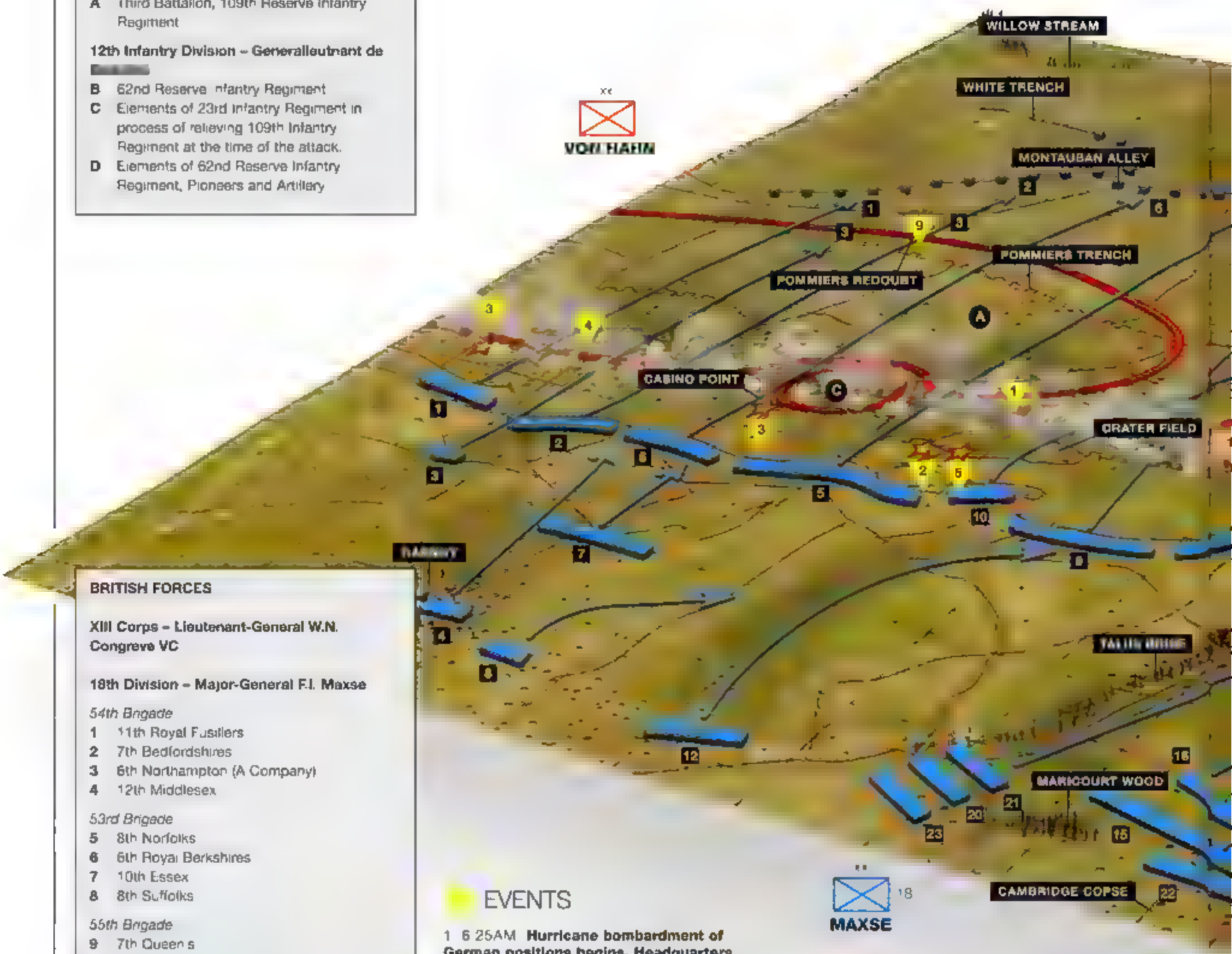
55th Brigade
9 7th Queen's
10 7th Buffs (Two Companies)
11 8th East Surreys
12 7th Royal West Kents

30th Division – Major-General J.S.M. Shea

21st Brigade
13 18th King's
14 19th Manchesters
15 2nd Wiltshires
16 2nd Green Howards

89th Brigade
17 17th King's
(19th King's (off map))
18 20th King's
19 2nd Bedfordshires

90th Brigade
20 2nd Royal Scots Fusiliers
21 16th Manchesters
22 17th Manchesters
23 18th Manchesters



EVENTS

1 6.25AM **Hurricane bombardment of German positions begins. Headquarters position in Glatz Redoubt has already been destroyed by howitzer shell. All advances are covered by a six-stage bombardment.**

2 7.15–7.22AM **Entrances to Russian Saps tunnelled under no man's land to within 20yds of German front line are blown open and trench mortars begin bombardment.**

3. 7.27AM **5,000lb (2,268kg) mine laid by 283 Tunnelling Company RE under Casino Point blown.**

4 7.30AM **Assault begins.**

5 7.30AM **Livens flame projector used to clear western edge of Crater Field.**

6. 7.30AM **Captain Nevill of 8th East Surreys kicks off the advance of his company with one of four footballs.**

7 7.40AM **Colonel Fairfax from 17th King's goes forward arm in arm with Commandant Le Petit from 153rd Infantry Regiment.**

8 8.35AM **Advancing troops reach Glatz Redoubt and capture position.**

9 9.30AM **After a fierce battle Pommiers Redoubt captured.**

10. 10.00AM **British troops enter western end of Train Alley.**

11 10.30AM **Montauban village captured.**

12 11.00AM **Montauban Alley reaches north of Montauban village and men from 16th Manchesters capture German field guns from Artillery Regiment Nr. 21.**

13. 12.34PM **20th King's capture Briquetrie Brickworks, after bombardment.**

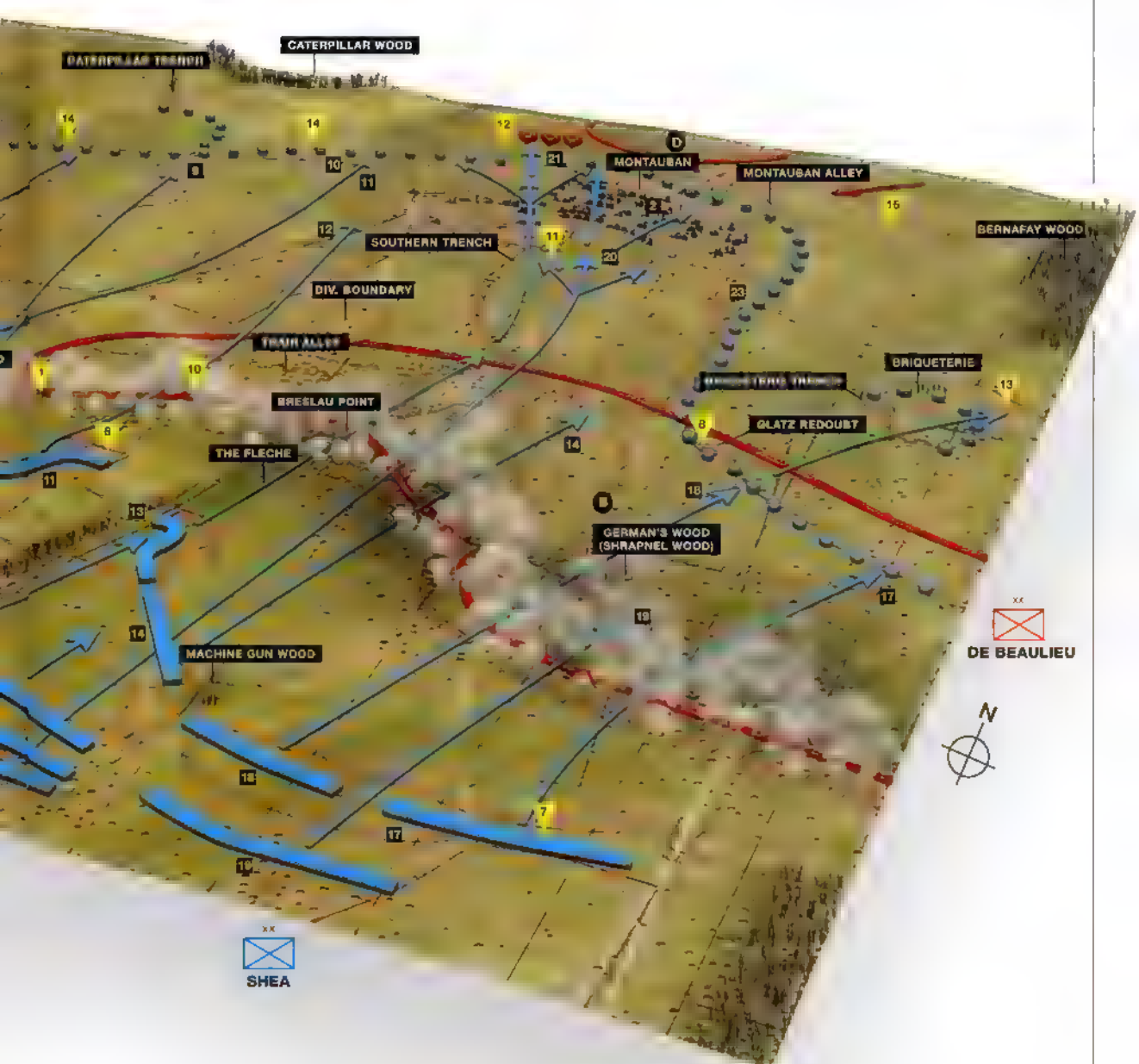
14. 5.15PM **Following the capture of the Montauban village and Pommiers Redoubt the resistance in the centre collapses and all of Montauban Alley is in British hands and being prepared for defence.**

15. EVENING **Poorly co-ordinated counter-attacks are driven off with British losses.**

THE ASSAULT ON MONTAUBAN

1 July 1916, attack of British XIII Corps, 18th and 30th Divisions, viewed from the south

Note: Gridlines are shown at intervals of 250 yards (228.6 metres)



18th Division

The 18th Division on the left of the corps front faced a tougher defensive system, and as a result between 7.15am and 7.22am entrances to six Russian Saps, tunnelled under no man's land to within 20 yards (18m) of the German front line, were blown open. From these entrances British mortars began a bombardment of the enemy positions to cover the advance. A few minutes later a series of mines, including one of 5,000lb (2,273kg) under Casino Point, was blown, and in the area of mining called the 'Crater Field' a Livens Flame Projector was used to clear the western edge of the defences. On the right the 55th Brigade was held up even though, in one of the best-known incidents of the battle, Captain Neville, 8th East Surreys, had kicked off the advance of his company with one of four footballs. An hour later the attack of men from the 30th Division on the right flank allowed the advance to continue. From 10.00am the brigade was able to make steady progress until it had reached its ultimate objective, Montauban Alley, by late afternoon.

With the full benefit of the mines and flamethrower the 53rd Brigade, in the centre, was able to make rapid progress and had captured the German strongpoint with its three machine guns by 7.50am. With success achieved on both flanks, the brigade pressed forward, meeting particularly fierce resistance. It was not until late afternoon that the Germans were forced back, and it was only following the capture of Montauban village and Pommiers Redoubt that resistance in the centre of the position finally collapsed. By late afternoon all of Montauban Alley was in British hands. By 4.00pm, the 18th and 30th Divisions were engaged in consolidating their positions and had established communication with the flanking units, both British and French. Patrols had moved ahead of the captured position and reported that Bernafay and Trones woods were empty. Despite the success of the corps, casualties were not light and amounted to over 6,000 men.

THE FRENCH SECTOR

XX Corps

By the time the French troops north of the Somme went into attack in concert with their British allies, conditions for the German troops in the positions they were about to attack had become a nightmare. Général Bafourier's corps moved off at zero hour against an enemy whose barbed-wire entanglements had been largely destroyed, their trenches caved in and even some of their deepest dugouts penetrated by heavy shells. The surviving members of the German garrison were dispersed in mine and shell craters. Communications had collapsed and only a gallant few of the defenders were capable of putting up resistance as the French infantry advanced.

By 12.30pm the men of the French 39th Division had reached their final objectives without having to call upon any of their reserves. In some cases French troops had advanced a further half a mile beyond their primary objectives. Like the flanking units from 30th Division, they found little sign of the enemy and there appeared to be a real opportunity to exploit the disarray in the German defences. By about

1.30pm Général Balfourier was in contact with his British counterpart from XIII Corps urging him to continue the advance. He was aware that for the French to proceed without flanking protection from the British on their left was inviting disaster should the Germans counter-attack. The response he received did not help Anglo-French relations. General Congreve declined on the basis that General Rawlinson had stressed the importance of securing the positions captured and preparing for the next step in the advance. Critically, on Balfourier's left 18th Division had not cleared its objectives and XV Corps was not fully successful, thus potentially exposing that flank. Despite further urging to advance, both the British and French corps held the ground they had reached by the end of the day and men from the British 18th and French 39th Divisions fought off half-hearted counter-attacks during the latter part of the afternoon and evening.

SOUTH OF THE SOMME

The two French corps, I Colonial and XXXV, advanced two hours after their comrades in XX Corps and found that the eight-day bombardment had been more effective in this area than in any other part of the Allied front. Importantly for the French infantry, the German artillery had been virtually silenced and the main focus of the German defence was isolated machine-gun positions and small groups of infantrymen. The advance was not hurried and the experienced French infantry took advantage of every crater and fold in the ground to conceal their movements. Making use of a variety of light automatic weapons to provide supporting fire, small groups of French troops infiltrated through weak spots in the defences to cut off the enemy and overwhelm strongpoints. Although the village of Frise, in a difficult position by the steep slope down to the River Somme, proved a challenging objective, the French divisions had closed on the German second line and over 3,000 prisoners were making their way to the rear. The day had been a clear triumph for the French. The shocking scenes at Beaumont Hamel, Serre and Gommecourt provide a stark contrast to the experience of the French *poilus* as they systematically cleared the Germans from their pulverized defences. It appeared that the road to Peronne and beyond was open and that a renewed advance would follow on 2 July.

THE GERMAN EXPERIENCE

For many German soldiers, the initial response to the events of 1 July was one of relief. They had endured a long period of waiting and then continual shelling, so the end of the bombardment gave the opportunity to deal with the much-anticipated attack. In some areas the German troops were rapidly overwhelmed, but in many others they marvelled at the spectacle that unfolded before them on the bright summer's morning. Despite local surprise, the effect of the bombardment or the detonation of mines under their positions, German troops proved adept at launching immediate attacks to seize key features. In some cases they appeared behind the attackers as they dug themselves out of dugouts or

German soldiers receive their rations in a postcard of 1916. By the time of the Somme, rations were being reduced and there were food shortages on the home front. One effect of the Allied preliminary bombardment was to prevent food and drink getting to front-line units and some fought on 1 July on an empty stomach. (Author's collection)

used their local knowledge to exploit the topography to maximum effect. One feature of the day for the Germans was the leadership demonstrated by relatively junior soldiers. Although the German Army operated with a smaller number of officers than the British, its highly trained NCOs showed great initiative and tactical ability. This was the hallmark of the German Army and the losses of these men during the protracted Somme battle would have a profound effect on future operations.

Similar to the British experience of the battle, there were great contrasts in the experience of German soldiers on 1 July. Whereas units facing the French and XIII Corps found that their defences had crumbled under the weight of enemy artillery and that their own supporting weapons were largely silenced, the defenders in the northern sector could take time to pick targets, demonstrating careful fire discipline and causing the horrific Allied casualties. This does not mean that the German Army had an easy day – their casualties mounted rapidly, adding to the hundreds that had already been lost during the preliminary bombardment. German casualties were not compiled on a daily basis and the confusion of the day meant that accurate figures are difficult to determine. Nonetheless, estimates for German casualties, including prisoners, range from 10,000 to 12,000. Although these figures were considerably smaller than the British numbers, the situation for German high command was not entirely favourable by the end of 1 July.

As has been seen, some reserves had already been called forward the previous month and in many areas new batteries were in place. The German forces on the Somme were not well provided with additional reserves and some piecemeal reorganization was taking place when the Allied attack was launched. Even before the Allied attack began some areas of the German defensive line were very weak and vulnerable. At Sixth Army headquarters news from the front was initially received in a calm and calculated manner, and for General von Below the only real concern was the fall of the Schwaben Redoubt. To this end he ordered that it should be recaptured at all cost. Later in the day von Below heard that General von Stein, commanding XIV Reserve Corps, had been

A captured German trench and sandbagged dugout entrance in the village of La Boisselle. Despite the ferocity of the bombardment, the entrance is undamaged and the wire, on knife rests, is still a formidable obstacle. The failure by some British units to adequately clear or destroy captured dugouts contributed to the casualties as the garrison emerged behind the attackers. (IWM Q890)

forced by shelling to leave his headquarters in Bapaume. This resulted in broken communications, which when re-established appeared to indicate that a collapse in the southern sectors was imminent. The loss of further ground was met with pushing all available reserves to the threatened points and attempting to restrict the losses to a minimum. In some places grooms, cooks and servants were sent into action. Later in the day the favourable results from local counter-attacks and the sustained German artillery fire were a relief to the German high command.

The lack of any real success for the British in the north allowed the Germans to concentrate on the southern portion of the battle and to rearrange the reinforcements as needed. The fixed positions in some areas were badly damaged and further south toward the Somme much of the first line was captured and numerous guns were out of acuon or captured. This was the area of greatest concern. At the end of the day the situation was reviewed, the placement of troops was established and reserves were called forward to fill gaps and reinforce the lines where the need was the greatest. The true picture would not be known until 2 July at least, but in the first few days after Z Day the German line from Montauban south to the Somme was virtually broken, and they had lost over 100 guns. Despite this the line held and the professional German soldier stood his ground as best he could. In some sectors there was a sense of elation when the fighting was over and the Germans realized how well most of the line had held, and when they saw the large numbers of British losses left on the field. The commander of the 99th RIR estimated up to 5,000 dead lying in front of the regimental position, who would be left where they lay as a grim reminder to those who followed of what awaited them. The defence of 1 July was seen as a great victory as well as confirmation of the supreme effort and defensive fighting of XIV Reserve Corps.

A badly wounded British soldier from the 29th Division is carried to a Regimental Aid Post near Beaumont Hamel, in a still from the film shot by Malins on 1 July and featured in the early documentary *The Battle of the Somme*. The rescuer has been identified as RSM George Wood of the 21st Pioneer Battalion of the West Yorkshire Regiment. The unidentified wounded soldier died from his wounds. (IWM Q753)

An RAMC orderly attached to the 1st Battalion, Lancashire Fusiliers gives a wounded soldier a drink at the Regimental Aid Post close to White City. The seated figure with the SB armband is one of the small group of stretcher bearers who were given the task of collecting the wounded from the battlefield and bringing them to the RAP. (IWM Q739)

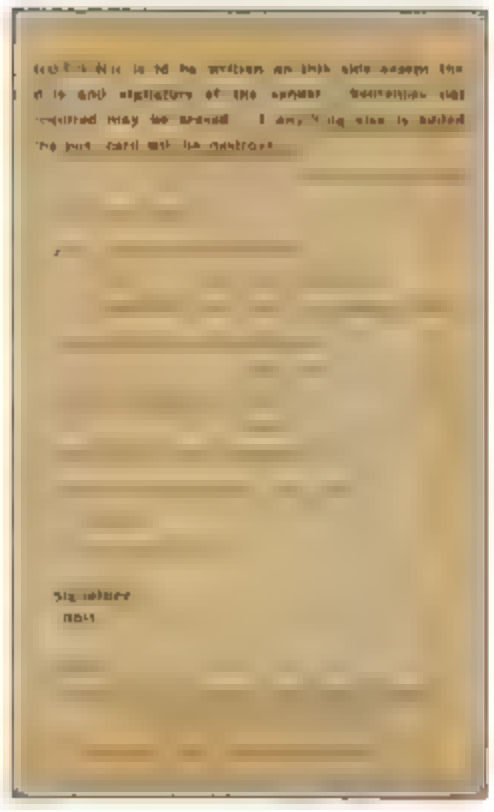
Without weapons or equipment a small group of surviving Lancashire Fusiliers, with at least one D Company corporal visible at bottom right, answer their names at the roll-call on the evening of 1 July. The stance and faces of these men display exhaustion and bitter disappointment. During the day the battalion lost 486 casualties without capturing a single section of enemy trenches. (IWM Q734)

THE SITUATION AT THE END OF THE DAY

The Gommecourt diversionary action had proved to be a failure and the heavy casualties around Serre and Beaumont Hamel were proof of the success of the German Army's defence over the British plan of attack. North of the road from Bapaume to Albert only the attacks by the 32nd and 36th Divisions had provided toe-holds in the German defences. The situation to the south was far more favourable. The Allies in this area had exploited the weakness in the German defences, the provision of greater weight of artillery and better planning to produce a military triumph. III Corps had suffered heavy casualties, but was now established in the German first-line positions at Ovillers. XV Corps had achieved partial success and with Mametz captured, Fricourt was in the process of being outflanked. For XIII Corps the day was one of almost total triumph. Despite heavy casualties it had taken most of its initial objectives, including Montauban. On its right flank the French were even more successful and were moving onto the German second-line positions. With the attack in the north shattered and with news of the achievements in the south arriving at his headquarters, Rawlinson failed to order the available reserves into action. Unlike Haig, who early in the day had suggested that the opportunity had presented itself to exploit what he took to be a potential breach in the enemy defences, Rawlinson was still working on his programme of 'bite and hold'. Although total collapse of the German Army between Mametz and the Somme was unlikely, an opportunity to exploit success was lost. Objectives that were undefended during the first few days of July would be fought for in bloody battles in the weeks ahead.

AFTERMATH

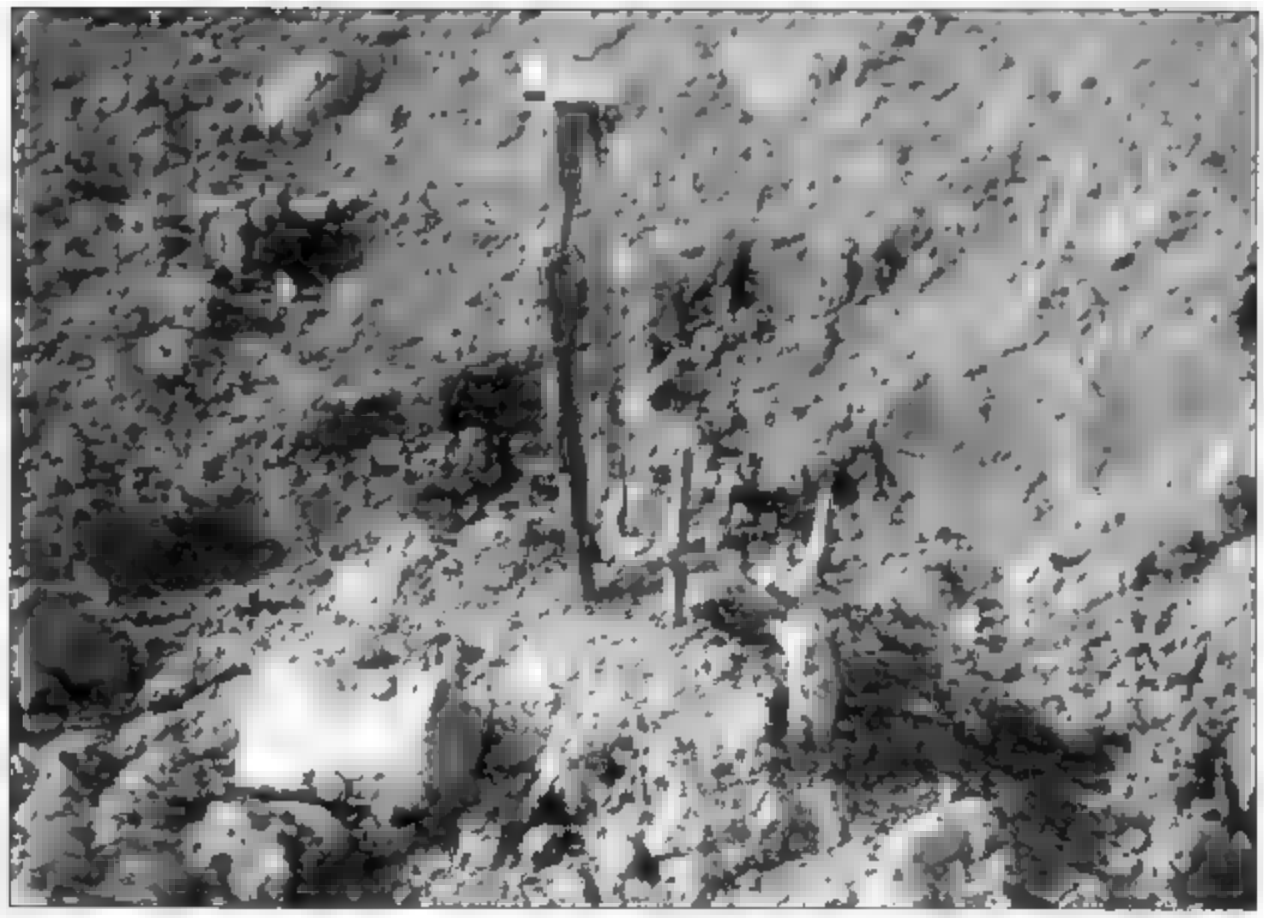
With the benefit of hindsight, the events of 1 July 1916 have a sense of terrible inevitability. Today we know that the casualties would be heavy and that the battle would be largely unsuccessful, despite the heroic efforts of the British troops involved. For the men of 1916 it was not so pre-determined or futile. They did not see themselves as 'doomed'. The soldiers who went over the top did so in the expectation of success, qualified by the knowledge that it was inevitable that some of their number would become casualties. They had seen and heard the preliminary bombardment, witnessed the massing of men and materiel for the forthcoming offensive and had been trained in the tactics they would use on Z Day. Many had been involved in exercises to rehearse what would happen in their particular attack and all understood that war involves risk. A number of officers had studied the plan of attack and were aware that there were flaws; a few even forecast heavy casualties as a result, but the majority believed that the plan would succeed. This optimism is difficult for subsequent generations to understand, but it was based not only on what the officers and men were told, but also what they saw for themselves. The 'Big Push' was the largest operation attempted by the BEF to that date and the application of so much man- and fire-power was clearly going to have some effect on the German defences on the Somme. To what extent that view was correct depends upon the interpretation of the historical evidence.



The British Field Service postcard, called the 'whizz-bang' by the troops. This one was produced as part of a run of over 1 million in June 1916. It was cards of this type that the survivors of the 1st July sent to their families as proof of their survival. Sadly some were sent by men who would subsequently die from their wounds. (Author's collection)

A MILITARY DISASTER?

Today the first day of the Somme is widely regarded as a total military failure that resulted in heavy loss of British lives for no purpose. Modern historians have contrasted the tragedy of the attacks by VII, VIII and X Corps in the north with the achievements of III Corps in the centre and the bold gains of XV and XIII Corps in the south. Emphasis is normally placed on the disasters of the day and little consideration has been given to those places where British troops were able to triumph. It is an irony of the battle that if the Somme is defined by a single day, it is the least successful attacks of that day that are seen as being typical of the experience. There is no arguing with the numbers of casualties incurred by the BEF in a few hours that summer's morning. The records tell us that by the end of the day, Third and Fourth British Armies had lost a total of 57,270 men as casualties – dead, wounded, prisoners and missing. However, when Haig was writing in his diary on the evening of 2 July about the casualties sustained the previous day he commented '... the total casualties are estimated at over 40,000 to date. This cannot be



A shell hole becomes a grave for a British soldier. The addition of the remains of a figure of Christ from a smashed Calvary, splintered cross and rifle as marker create a poignant scene. Such simple markers could be lost and the man buried by his comrades would become one of the missing of the Somme. (IWM Q4316)

A captain chaplain places chalk blocks around a grave near Carnoy in July 1916. The spade, stretcher, spoil and presence of the chaplain suggest that bodies are being collected from the battlefield for burial in a formal cemetery. In time this site would develop into the carefully tended cemeteries overseen by the Commonwealth War Graves Commission. (IWM Q4004)

considered severe in view of the numbers engaged, and the length of front attacked.'

How could Haig be so apparently complacent? The simple answer is his knowledge that such a battle would incur heavy casualties as all previous operations in the war had done. Attackers would inevitably lose more casualties than defenders unless circumstances were ideal. Secondly, news from the battlefield was far from accurate. At times it was contradictory or fragmentary and the emphasis on passing on good news suggested British successes far in excess of the real situation. By 7.30pm General Rawlinson's information told him that although VIII Corps had been pushed back in most places it was 'undertaking a fresh attack on Serre with some of 48th Division' – this was not happening. He was led to believe that at the same time 'III Corps are in Contalmaison and I think Bosselle' – it was in

occupation of neither village. His appreciation of the situation further south was more realistic. 'The XV Corps have taken Mametz... they have nearly surrounded Fricourt, but not quite, although I hope they may complete the circle to-night.' Fricourt fell the next day. Of XIII Corps he stated, 'They are in Montauban, and have taken all the objectives allotted to them.' This last comment was both accurate and no doubt a relief to the army commander, who had experienced a disturbing day.

Command, control and communication

Rawlinson had spent 1 July at his headquarters at Querrieu where he was in telephone communication with his corps commanders. The only information he had available came from these officers and he was totally dependent upon them for information on which to make decisions. If the information was incorrect, which was likely based on the intelligence from the RFC or from the reports that had been received at brigade and divisional level, no real appreciation of the battle could be made. In some cases there was simply no information available because the telephone cables had been cut or not yet laid, the messenger had not made it to the rear or had become a casualty, or because other means such as signal lamps and flags had failed.

More than once on 1 July officers on the battlefield, such as the senior officers in the 4th and 29th Divisions, failed to prevent attacks that they wished to cancel because the orders could not be transmitted to the units. At the same time units that found gaps in the enemy defences, as occurred on the front of the 30th and 36th Divisions, were unable to get this information back down the chain of command with sufficient speed for the opportunity to be exploited. These communication problems also affected the ability of the artillery to support the infantry and on many occasions the foot soldiers watched the supporting barrage falling ineffectively far ahead of their true positions because the rigid timetable dictated an unrealistic rate of advance. Under these circumstances Rawlinson was not able to exercise effective command and control of the forces at his disposal.

Sir Douglas Haig was in a similar situation to his army commander and visited Rawlinson during the afternoon in an attempt to establish how the battle was going. It was as a result of the information he received during the visit that he instructed that the attack of Fourth Army would continue on the following day. When this order was given, the information available to Rawlinson, and hence Haig, was that casualties amounted to 16,000. It was only later that the casualties reported escalated to over 57,000.

The question remains, therefore, if this higher figure had been available, would the continuation of the battle on the second day have been an option? The simple answer is yes, because casualties were to be expected. It was anticipated that if the battle was not a 'wearing out fight' on the French model, then it would be protracted and that pressure would have to be maintained over a long period before German defences were breached. Perhaps more importantly, political pressure from both the government in London and the French meant that the battle would inevitably continue. It was in keeping with the initial plan and Haig's instruction of mid-afternoon on the 1st that at 10.00pm orders were given for all corps to 'continue' the attack. Haig

Buried by the enemy. The grave of Captain Lewes from 1/5th Sherwood Foresters (Nottingham and Derbyshire Regiment), 46th Division, close to Gommecourt. For the majority of the men who fell in no man's land burial would not happen until the action moved on or until the German withdrawal in the spring of 1917. As a result many of these men would be buried in unmarked graves identified by regiment or corps, but without a name. (IWM Q7797)

additionally released two infantry divisions, the 23rd and 38th (Welsh), to be available to Rawlinson, although he hinted that the latter were not to be used too soon. Haig also gave General Gough, commander of Reserve Army, command of X and VIII Corps on the left wing so that Rawlinson could concentrate on the more successful corps on the right.

'He did for them both with his plan of attack'

In looking for reasons for the failings of the day a number of explanations might be suggested. One is the shortcomings of the generals, specifically Haig and Rawlinson. There is no question that the choice of the Somme and the date of the battle were far from ideal for the BEF. The location stretched scarce logistic resources, the battle lacked a clear overall objective and was fought at a time before the training of the New Army was complete. All these factors were outside Haig's control, as he was serving in an alliance as a junior partner and at the behest of political masters who had little grasp of the military reality of the war. In devising their plan, Haig and Rawlinson were forced into a series of compromises with the French over details of the frontage, objectives and timing, but they were not in a strong bargaining position from the outset.

Haig's relationship with Rawlinson, the army commander given the task of carrying out the operation, led to debate and compromise about the scope of the battle, its tempo and tactics. This aspect of the operation was under Haig's control, but he was working with the most experienced commander available, a man with a proven ability to

control the modern battle. In the circumstances, mistakes were clearly made by both men, especially concerning the artillery. From the outset, whether the barrage that preceded the battle was short or protracted, it was determined that the artillery was key to success. What was finally planned was a long preliminary bombardment that had three objectives: to cut the barbed wire, neutralize the German trench garrison and destroy the defending artillery. Although Rawlinson was careful to calculate the number of guns required for the plan in relationship to the frontage to be attacked, it was the shortage of weapons of sufficiently large calibre, provision of the wrong or malfunctioning ammunition, and lack of training for the gunners that was a major factor in the failures of 1 July. Arguably these factors were outside Haig and Rawlinson's control, as better fuses were not available until late in the battle, insufficient high-explosive shells were manufactured and training for many of the gunners, in common with some infantry, was poor.

There can be no question that especially in the northern sector, British artillery failed to destroy or disrupt the German artillery; further south, particularly where French guns were available, the situation was more favourable. The result was that in the northern sector German artillery was to cause as many, if not more, casualties than machine guns. However, despite the apparent failings of the British artillery, German troops found the bombardment devastating. Although in few areas, most notably those facing the 46th Division, 31st Division and some areas of the 29th Division, the barbed wire was largely undamaged, most of the British troops on Z Day found that the wire was well cut. South of the Albert–Bapaume road it was rarely mentioned as an obstacle. Certainly an examination of the numerous examples in which British infantry were able to cross no man's land and successfully attack the German trench system suggests that the wire had ceased to be a problem on large sectors of the front.

The race for the parapet

If wire wasn't the universal barrier to rapid advance, then perhaps the answer lay in the deficiencies of tactical training. Rawlinson stands accused of sending the men under his command forward in waves, restricted to a walk by orders from above and by the weight of their personal equipment and weapons. It is quite clear that although he felt all the men in a wave should arrive at their objective at the same time, he left it to local commanders to decide how this should be achieved. This would depend upon their personal preferences and the level of training achieved by the men under their command. As a result, tactics varied from waves going forward at a walk to units crawling forward into no man's land to 'rush' the enemy parapet at zero hour. If tactics varied, then the weight the men carried did not greatly differ from one unit to another. Sir Charles Edmonds, the official historian of the Somme, asserted that all the men of the BEF went forward carrying a weight of about 66lb (30kg) of weapons and equipment. Modern experiments have shown that with the addition of the steel helmet, gas respirator, two grenades per man plus a minimum of 120 rounds per man in addition to uniform, personal equipment and a weapon, the average rifleman carried roughly 72lb (33kg). Specialists such as machine gunners carried yet more. The eminent historian A.J.P. Taylor claimed that it was this weight that

OPPOSITE After the battle. In September 1916 two British soldiers sit on the ruins of a German trench linking La Boisselle with Ovillers on the horizon. The immediate action has moved on, but the maze of telephone cable and abandoned cable reel is evidence that the battle is still being fought close by. (IWM Q4123)

The remains of the church in La Boisselle as captured by British troops. During the bombardment villages close to the front lines ceased to exist as the shelling destroyed buildings and obliterated the roads. Here a British officer stands on the highest point left in the entire village. (Courtesy of the Director, National Army Museum, London)

'doomed' the British soldiers, as once the bombardment lifted it was a 'race for the parapet'. This race, he believed, was easily won by the Germans, as the soldiers of the BEF were senselessly burdened with useless items. According to this theory all the German soldiers had to do was man the parapet and mow down the slowly moving British. Although Charles Edmonds, from whom this often-quoted idea originates, was a serving officer of the First World War, he was an engineer, not an infantry commander, and clearly had no concept of the task facing the infantry. There was virtually no part of his load, from rations, to helmet, ammunition, grenades, flares or sandbags, that an infantryman could discard. As was proved in numerous cases on 1 July, not only could a man carrying this weight of equipment move swiftly over the relatively small distance of no man's land, he would need virtually every item he brought with him once he was in the enemy position. Numerous examples demonstrate that once enemy fire came down behind the leading troops it was a question of how much had been brought with them that would determine how long these men could hold out.

Too much information

One of the great failings of 1 July was military intelligence: not only lack of information about the Germans, but also the failure by the British to keep the battle secret. Obviously prisoner interrogation by the Germans provided some information, but only at a time when it was already clear

An idealized view of the grave of a fallen comrade. Although British casualties on 1 July were a catastrophe, the German Army did not escape without loss. Especially in the southern British zone of attack and facing the French, German casualties were heavy, and would mount throughout the continued campaign on the Somme. (Author's collection)

An Australian infantry platoon in August 1918. One outcome of the fighting on the Somme in 1916 was the development by early 1917 of new tactics for the British infantry. The proportion of light machine guns was increased and every platoon was based on a combination of bombers, rifle bombers, machine guns and specialist scouts and snipers. (IWM E(AUS) 2790)

that the attack was imminent. Not briefing the men would have been a greater problem and clearly training had to be provided for men in the attack if they were to be successful. If this reveals anything, it is the shortage of manpower, which meant that soldiers who went into the attack were the same who had previously held the line, dug the 'jumping off' trenches and cut the wire. Conversely, it meant that they might have already been into no man's land and even raided the opposing trenches and were familiar with the sector. The biggest failing was therefore related to signals, and an immediate result of the Somme was the introduction of a telephone system that was not so easy to detect, and the use of cipher and code systems.

The role of the German Army and the casualties

The one factor overlooked in most considerations of 1 July is the enemy. If the artillery failed, the wire was uncut and the plan of attack was badly organized, it was German soldiers, riflemen, machine gunners and artillerymen who caused the casualties – not the generals, British artillery, or barbed wire. In many ways the German Army had an easier task in the battle than the British. Their hard work in the month preceding the battle had paid off, and although some dugouts were destroyed, in most cases the garrison emerged to engage the enemy before they could close on the trench line. In other cases the explosion of mines, the use of smoke or speed meant that the German defenders were caught off guard. And yet the German soldiers, both regulars and reservists, were quick to respond, rushing the newly created craters, emerging behind the attackers or holding out when outnumbered. At Beaumont Hamel men of the garrison of the Hawthorn Redoubt dug themselves out when they were entombed by the mine explosion and

went straight into action when they emerged. There can be no question that the fighting ability of the professional German soldier was demonstrated to great effect on 1 July.

British casualties of 1 July continue to attract comment and there is no question that this was the worst day for the British Army in the First World War. The question, therefore, is why were the losses so high and how were they avoided in the future? Were the casualties simply the result of a lack of training? Of the three divisions suffering the heaviest casualties on 1 July, the 34th Division, which lost 6,380 men, was a New Army formation that achieved partial success at La Boisselle. The next heaviest casualties, 5,240, were suffered by the 29th Division, a regular formation that experienced complete failure at Beaumont Hamel. To the south of 29th Division, the 36th (Ulster) Division, a New Army formation, lost a total of 5,104 in their largely successful attack on the Schwaben Redoubt. Instructively, the 46th Division (Territorial), which was among the divisions suffering the lowest casualties (2,455), failed almost completely at Gommecourt. At Montauban XIII Corps, 30th Division (regular and New Army) and 18th Division (New Army) lost respectively 3,011 and 3,115 men in the most successful attacks of the day. But even here, with all the advantages of a highly successful preliminary artillery barrage, destruction of the German wire and defences, combined with use of the creeping barrage, British casualties were not light. The conclusion must be that even in operations that are successful, significant numbers of casualties are not avoidable, although they can be minimized.

LESSONS OF THE SOMME

Could the achievements of XIII Corps have been repeated elsewhere on the British front? The answer has to be a definite no. For the attack to have been successful elsewhere than in the southern sector would have required a weight of artillery that was not available to the BEF in July 1916, improved fuses for shells that were not manufactured until later in the year, and levels of training for gunners, infantry and other supporting arms that would be achieved in 1917, but not before. The development of a system of flexible infantry tactics making use of automatic weapons, rifle- and hand-grenades and trench mortars would be a product of the Somme, but did not feature in the training of the BEF in the summer of 1916. Tanks might have played a role had they been available, but they did not make their debut until mid-September.

Perhaps most importantly the level of co-operation between the key arms – infantry and artillery – lacked sophistication and flexibility. Haig and Rawlinson relied on the artillery to compensate for the poor training of the infantry. When the artillery failed, the infantry was virtually doomed. As we have seen, even well-trained and experienced formations such as the 29th Division could make no headway against the formidable German defences. There was no easy answer to the multiple problems that faced the men of the BEF on that summer morning north of the River Somme. There could be no question of not fighting the battle, driven as it was by political and military imperatives. One is forced to conclude that even better generalship would not have provided a swift

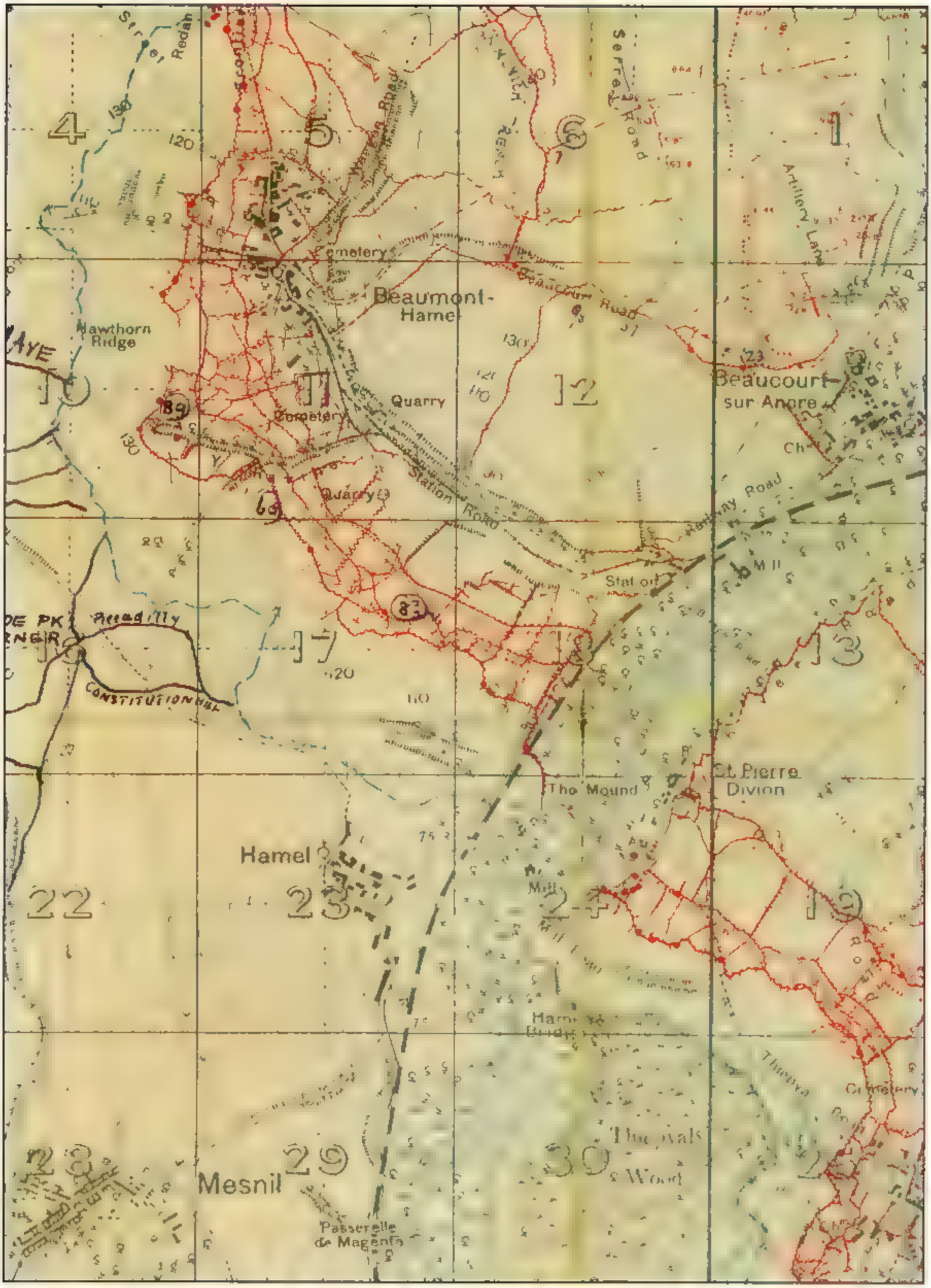
and less bloody solution to the well-entrenched, highly trained German Army that awaited the BEF on Z Day. The first day of the Somme was a day of both triumph and tragedy, remembered today for the heavy casualties and clear failings in the BEF. Significantly 1 July 1916 is not 'the' battle – it is a single day that began a 141-day campaign, during which period no operation of the magnitude of 1 July was attempted.

It is critical to note that the casualties of that day were never repeated by the BEF in the First World War. Subsequent battles such as Arras in the spring of 1917 and Messines in the late summer demonstrate that the lesson of 1 July had been learned. Combined with the application of technology, training and experience, the BEF had made a step to becoming a war-winning army. This was of little comfort to the families of men who fell that day and later in the war. Widows and grieving parents do not count the cost of war in terms of tactical sophistication and technological improvements. Today, the legacy of 1 July is seen in the massed ranks of headstones in the cemeteries of the Somme. For the men who did not fall that day, however, it marked the beginning of a process that would see eventually the creation of a BEF capable of defeating the German Army.

THE BATTLEFIELD TODAY

Most visitors to the Somme arrive via the A1 Autoroute du Nord from Calais and turn off at Bapaume onto the Roman road that cuts across the centre battlefield from north-east to south-west. This means that the majority of battlefield tourists arrive from behind what was, in 1916, the German lines. As a result it is not until one is close to the German third line of defences at Warlencourt, on the road to Albert, that clear evidence of the war in the form of Commonwealth War Graves Commission (CWGC) cemeteries and the occasional sign indicating the front line at various points in the campaign can be seen. From here on towards la Sars and Poziéres there is a profusion of monuments, signs and cemeteries with names evocative of the later campaign. To understand the 1st July battle it is necessary to initially ignore these inducements to stop and to continue on to the front line of the day. To do this it is wise to invest in some of the cheap facsimile trench maps produced by G.H. Smith and the French 1:250 IGN maps of the area (2407 O and E and 2408 O and E). For an example see the opposite illustration of a British 1:20,000 scale trench map of the Somme, Sheet 57D S.E. corrected to 28 April 1916. The section of map reproduced here covers the frontage of both the 29th and 36th Divisions on 1 July. Typical of thousands of similar maps distributed to officers planning the attack this example belonged to an officer of the 1/4th Oxfordshire and Buckinghamshire Light Infantry and was used during the battle. The 1/4th Battalion was part of 48th (South Midland) Division and was in reserve near Mailly-Maillet on 1 July. Note that the German trench lines and other defences are marked in red, whilst the British front line is indicated in blue. No detail of the British trench system is indicated so that it would be of little value to the Germans should it be captured. Note however that an officer has marked the British communication trenches close to Auchonvillers in ink. One can only suspect that he optimistically hoped that these would provide the route of advance once the German defences around Beaumont Hamel were overcome. Beaumont Hamel was not captured until 13 November, at the close of the battle of the Somme. The section of map reproduced here covers the frontage of both the 29th and 36th Divisions on 1 July, and is covered in mud and candle-wax stains which indicate that it was carried into the trenches and dugouts of the Somme.

Although trench maps are a useful guide to the battlefields, recent archaeology indicates that they cannot be completely relied upon. Not only do they lack detail, omitting many features, they cannot be relied upon to be an accurate representation of the actual position of defences. Although drawn from aerial photographs and checked against the pre-war French map system they frequently have a wide margin of error. Nonetheless a map such as this shows the level of intelligence the


Beaumont-Hamel
Beaucourt-sur-Ancre
Hawthorn Ridge
Cemetery
Quarry
Station Road
Beaucourt Road
Serre Road
Artillery Lane
Redan
Piccadilly
CONSTITUTIONHILL
Stat on
Hamel
Mesnil
The Mound
St Pierre Divion
Thiepval Wood
Passerelle de Magenta
Cemetery
4
5
6
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11
12
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Although this would appear to be a typical image of French farmland, it is also the battlefield. The view is from close to the village of Thiepval towards the positions in Thiepval wood from which men of the 36th Division attacked. Agriculture and nature have returned the fields to much as they appeared in 1914, but they still hide a bitter legacy and the 'iron harvest' of shells and grenades takes a yearly toll of farmers and unwary souvenir hunters.

British Army had amassed about the German defences and indicates the sort of information British officers used in preparing for the advance on Z Day. It is worth saying, however, that a combination of a French road atlas and some trench maps will be sufficient. Unlike other areas, the battlefield of the Somme has largely escaped modern development, and although some woodland has gone, the topography remains as it was in 1916. In some cases the villages are smaller today than during the First World War. One consequence of this is that there are few cafés or bars for visitors and toilets are at a premium away from the major tourist sites.

The newest visitor centre is that located close to the Thiepval Memorial to the missing of the Somme. This centre features an orientation area, café, shop and ample parking. A visit certainly helps to make sense of Lutyens's memorial to the more than 72,000 men from the British Army whose remains were either not found or not identified after the battle. Quite close by is the Ulster Tower, the monument erected by the people of Ulster to commemorate the men of the 36th (Ulster) Division who fell on the Somme

There are two large museums to visit on the Somme, each offering something different. The Museum des Abris under the Basilica in Albert has a wonderful collection of artefacts from all the combatants engaged in the battles on the Somme, and the subterranean visit is bound to remind one of the nocturnal life of the trench soldier. Further away, and behind German lines in 1916, is the Historial de la Grande Guerre in Peronne. This museum, established in the medieval ruins of the citadel, has much to say about the universal experience of all the nations involved in the war, and while it is not a museum of the Somme battle, it reminds visitors of the international nature of the First World War and

Men of the 4th Battalion, Worcester Regiment (29th Division) smile at the camera on their way into the line. Although heavily laden with trench stores, their brigade (the 88th) will be in reserve on 2 Day. This is a typical image published in the British press to help sustain morale on the home front. (Courtesy of the Director, National Army Museum, London)

the loss and destruction that conflict causes. Other sites that will enhance a visit include Avril William's café and bed and breakfast at Auchonvillers, 'Ocean Villas' to the British soldier. Although behind British lines, Auchonvillers has yielded a vast amount of information about war in a front-line village, especially concerning the transition from French to British occupation, trench construction and trench life

Of the major topographical changes made by the first day of battle, the craters of the mines blown at Lochnagar near La Boisselle and at Hawthorn Redoubt near Beaumont Hamel are well worth a visit. The former is signposted from the Bapaume–Albert road and is a pilgrimage site for thousands of visitors every year. The second mine crater blown at the Y Sap to the west of the main road has long been filled, but the cratered ground of the Glory Hole is still visible as you pass through the village. The crater at Beaumont Hamel is more difficult to access and, being full of trees, is a less evocative site. The visitor should remember that this mine was blown for a second time during the successful attack in November 1916 by the 51st Division. Most visitors will choose to park in the end of the 'sunken lane'. It was from here that two companies of the Lancashire Fusiliers attacked, having been filmed by the official cinematographer Geoffrey Malins. The lane with its thin hedge still survives and armed with a still from the film it is hard not to feel the fear and apprehension of the men, many of whom would not live until the end of the day.

A view of the Commonwealth War Graves Cemetery, Serre Road Number 2. This cemetery lies close by the German defensive redoubt the Heidenkopf. One of the burials is that of an unknown member of the 1st Battalion King's Lancashire Regiment, who was discovered by the No Man's Land archaeological group in October 2003. A casualty of July 1916, he was buried with full military honours in April 2004.

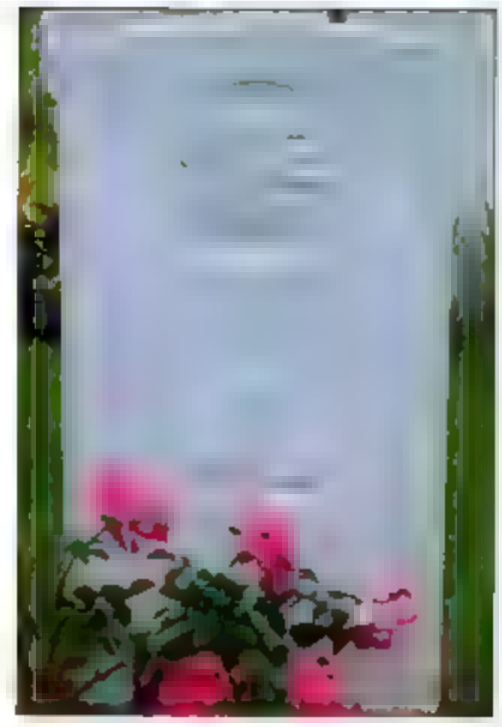
To see the battlefield today as it was in 1916 requires imagination, as the trenches have largely disappeared and are only visible as chalk marks in the fields after ploughing. A rare survivor of front-line trenches can be found in the wood near Serre that was once Mark, Luke and John copses. However, at the Newfoundland Memorial between Auchonvillers and Hamel the lines of trenches from 1 July and subsequent battles can still be seen. The visitors' centre here provides a way to orientate yourself to the site, and the knowledgeable young Canadian guides provide a good explanation of the site and its significance, both for the Newfoundland Regiment and the other units who served here. One problem is the trees planted since the war, which provide shelter but tend to isolate the memorial area from the surrounding landscape.

Getting away from the car or coach is always the best way to approach the battlefield, and if one is able to find the location of a trench on a map, or better still find evidence of its existence on the surface, it is worth considering one's field of view. Crouch down or better still lie down and then consider what one can see from a trench in that position. Remember most soldiers only stood in the open in the dark when they were on patrol or on a wiring party or when they 'hopped the bags' during the assault.

In the summer of 2006, to coincide with the 90th anniversary of the battle, it is planned to open some of the area on the edge of Thiepval wood, now owned by the Somme Association, to visitors. Here they will be able to see the trenches and other battlefield features recently excavated by the group 'No Man's Land'. It was from these trenches that the Ulster men of the 36th Division emerged on the morning of 1 July 1916. In a few areas of the Somme, trenches survive as lumps and bumps in fields and more frequently woodland. Remember, these are located

on private property and the exploration of such sites is illegal and inherently dangerous. On no account should one pick up or collect munitions of any sort. Once again, this is illegal, and grenades, shells and mortar bombs are in many cases still live.

No visit to the Somme would be complete without a visit to one of the numerous cemeteries. A visit to the CWGC website (http:/ /www.cwgc.org/cwgcinternet/search.aspx) will provide a wealth of information about the location of graves or memorials belonging to relatives or other men one is interested in locating. The commission also publishes a handy map that marks all the cemeteries, and this makes a useful guide to the front line. Standing on Redan Ridge north of Beaumont Hamel one can see a line of white crosses marching off in two directions, neatly, if inadvertently, showing the location of the front line on 1 July 1916.



The grave of the unknown member of the King's Lancashire Regiment in row 2A of Serre Road Number 2 cemetery. The red rose of Lancashire on his grave is an indication of the wonderful attention to detail taken by the Commonwealth War Graves Commission in caring for these 'Silent Cities'.

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INDEX

Figures in **bold** refer to illustrations

advance tactics 27, 82–4
  see also jumping off
aircraft **32**, **62–4**
artillery
  18-pdrs **43**
  ammunition supplies **40**
  British 25–6, **34**
    battle preparations 18–19, 32–4
    preliminary bombardment 35–7
  creeping barrages 37, 66, 68
  effects **35**
  efficacy at the Somme 82
  French 27–8, **28**
  German 37, **46–8**
  howitzers **44**
  Lewis guns **46–8**, **62–4**
  mortars **34**
  railway guns **28**
Artois, first battle of (1915) 9
Auchonvillers 91
Australian forces **85**
Authuille wood 56

Balfourier, Général 72–3
barbed wire **31**, **36**, **62–4**, **75**
  effect of artillery on **35**
battle orders 29–30
Beaumont Hamel 46–9, 52–6, **76**, 85–6, 88
Beaurepaire, Château de **17**
Below, General Fritz von 15–16, 74–5
La Boisselle 58–65, **62–5**, **75**, **83–4**, 86
British Expeditionary Force (BEF) 22–7
  1915 activities 9–10
  battle HQ **17**
  battle order 29–30
  commanders 16–19
    competence 7, 16, 25, 81–2
  experience and training 16-17, 24–5, 27
  'New Army' 23–4
  organization 10–11, 22–3
  'Pals' battalions 23–4
  plans 11–12, 17–18, 19, 20, 32–5
  relations with French 10–11, 17, 20
  size, composition and role 7–8
  Territorial Force 23
British Expeditionary Force: units
  brigades
    14th 58
    20th 67
    21st 69
    22nd 67
    23rd 61
    25th 61
    50th 67
    53rd 72
    55th 72
    63rd 67
    64th 66–7
    70th 61
    86th 53
    87th 55
    89th 69
    90th 69
    91st 67
    93rd 49
    94th 49
    96th 57–8
    101st 61–5
    102nd 61
    103rd 61, 65
    107th 57
    108th 57
    109th 57
    137th 44
    139th 44
    Rifle **46–8**
  corps
    III 58–65, 77
    VII 33, 41–5
    VIII 37, 45–56
    X 56–8
    XIII 36, 37, 68–72, 73, 77, 86
    XV 36, 37, 65–7, 73, 77
  divisions
    4th 37, 52–6
    7th 66, 67
    8th 60–1
    18th 68, 72, 73, 86
    21st 37, 66
    29th 27, 37, 52, **76**, 86, 88
    30th 68, 69, 86
    31st 27, 37, 49
    32nd 57–8, 77
    34th 60–5, 86
    36th (Ulster) 57, 77, 86, 88, 90
    46th 41–5, 86
    48th (South Midland) 88
    56th 41–5
  regiments
    Bedfordshire **26**
    Durham Light Infantry 49
    East Lancs 49, 52
    East Surreys 72
    East Yorks 67
    Hampshires 52
    Highland Light Infantry 57–8
    Inniskilling Fusiliers 55
    King's 69
    Lancs Fusiliers 54, **54**, **76**, 91
    Lincolnshire **62–4**
    Manchesters 69
    Middlesex 54
    Newfoundland 55–6, 92
    Northumberland and Lancs Fusiliers 57
    Royal Fusiliers 54
    Royal Scots 65
    Royal Warwicks **52**
    Seaforth Highlanders **41**
    South Wales Borderers 55
    Tyneside Irish **60**
    Tyneside Scottish 61
    West Yorks **76**
    Worcester **91**
    York and Lancaster **23**
Brusilov Offensive (1916) 15

casualties 74, 78, 84
  reasons for 86
cemeteries **92–3**, 93
Chantilly Conference (1915) 11
clothing *see* uniforms and clothing
command and control 26–7, 80–1
communications
  pigeons **37**
  problems 18, 79–80, 85
  telephone 18, 26–7, 31, **52**, **83**, 85
Congreve, General 73
creeping barrages 37, 66, 68

Douai Plain: strategic importance 9
dugouts **75**

Edmonds, Sir Charles 82, 84
Eitel, Lieutenant **46–8**
equipment 25–6, **54**, **62–4**, **91**
  weight of 82–4

Fairfax, Colonel 69
Falkenhayn, General Eric von 13, 15
Fayolle, Général Marie Emile 27–8, 40
Foch, Général Ferdinand **19**, 20
French, Sir John 10, 17, 20
French Army 27–8
  battle order 30
  commanders 19–20
  plans 40
  relations with BEF 10–11, 17, 20
  at the Somme 69, 72–3, 77
  units
    I Colonial Corps 40, 73
    II Corps 40
    XX 'Iron' Corps 40, 72–3
    XXXV Corps 40, 73
    39th Division 72
    153rd Infantry Regiment 69
Fricourt 65–7, **65**, 77
Frise 73

gas attacks 10, 13, 66
German Army 21–2, **21–2**, **74**
  121st Reserve Regiment **46–8**, 49, 52
  battle order 29
  commanders 15–16
  experience and training 16, 22, 74
  military intelligence 38–40, 84–5
  performance assessed 85–6
  plans 15–16, 31–2
  at the Somme 73–5
  trench system 22, 31–2, **31**, **38**, **61**, **65**, **75**
Gommecourt 41–5, 86
Gough, General 81
graves **79**, **81**, **92–3**

Haig, Sir Douglas **8**, **19**
  and aftermath 78–9, 80–1
  appointed c-in-c 10, 17
  background and experience 16, 17–18
  battle HQ **17**
  on BEF's abilities 24
  competence 81–2
  relations with French 10–11, 17, 20
  strategy 17–18, 19, 20, 32, 34
Haldane, Richard 17, 23
Hawthorn Redoubt mine 52–4, **55–6**, 85–6, 91
Hebuterne, battle of (1915) 9
Heidenkopf, attack on the **46–8**, 49, 52
helmets **9**, 21
Hunter-Weston, Lieutenant-General Sir Aylmer 49

Joffre, Maréchal Joseph 11–12, 17, 19–20, **19**, 40
jumping off 35, **41**, 72

'King Street' **54**
Kitchener, Lord 10, 12, 18, 23–4

Le Petit, Commandant 69
Leipzig Salient 56, 57–8
Lewes, Captain C.F.M.: grave **81**
Lewis, Lieutenant C.A. **62–4**
Lochnagar mine 61, **62–4**, 91
logistics 11, 25, 74
Loos, battle of (1915) 11, 18–19

Malins, Geoffrey 53, 91
  film shot by **54–6**, **76**
Mametz 65–7, **66**
Marne, battle of the (1914) 8
Mash Valley 58, 61
Maxse, Major-General Ivor 68
medical care **24**, **62–4**, **76**
memorials 90, 92
messenger pigeons **37**
military intelligence 38–40, 84–5, 88–90, **89**
Montauban 68–72, 86
museums 90–1

Neuve Chapelle, battle of (1915) 10
Newfoundland Memorial 92
Neville, Captain 72
No Man's Land archaeological group 92

O'Gowan, Major-General R. Wanless 68
Ovillers 58–65, 77, **83**

pigeons **37**
plans *see* strategy and plans
postcards
  propaganda **6**, **15**, **74**, **84**
  'whizz-bangs' **78**
Pulteney, Lieutenant-General W.P. 60

'race to the sea' (1914) 8
raiding 27
rations **74**
Rawlinson, Lieutenant-General Sir Henry **18**
  and advance tactics 27
  and aftermath 77, 79–80
  background 18–19
  competence 81–2
  Somme preparations 19, 32–5, 36
Royal Flying Corps (RFC) 26, **32**, **62–4**
Russia: Brusilov Offensive (1916) 15

Sausage Valley 58, 65
Schlieffen Plan (1914) 7, 21–2
Schwaben Redoubt 56, 57, 74, 86
Serre **10–11**, 46–52
smoke use 43–4
Snow, Lieutenant-General Sir T.D.O. 43
Somme, battle of the (1916)
  troop positions on eve **39**
  troop positions at 7.30am **42**
  troop positions at nightfall **59**
Stein, Generalleutnant Hermann von 16, 74–5
strategy and plans
  Allied 11–12, 17–18, 19, 20, 32–5, 40
  deception 33
  German 15–16, 31–2

tactics
  advance 27, 82–4
  lessons learned 85, 86
The Tambour 67
tanks 86
Taylor, A.J.P. 82–4
telephone 18, 26–7, 31, **52**, **83**, 85
terrain **10–11**
Thiepval 56–8, **90**
Thiepval Memorial 90
trench-fighting techniques 10
trenches
  British **54**
  function 8–9
  German system 22, 31–2, **31**, **38**, **61**, **65**, **75**
  maps 88–90, **89**
  nowadays 92–3

Ulster Tower 90
uniforms and clothing
  German **21**
  helmets **9**, 21
  mutze caps **21**
  puttees **9**

Verdun, battle of (1916) 12, 15, 27, 28
Vimy Ridge: strategic importance 9

water supply 11
weapons
  British 25–6
  flame projectors **69**, 72
  grenades 68
  rifles **23**, 25
  see also artillery
weather 36
Western Front: origins 8
'whizz-bangs' **78**
Wilhelm II, Kaiser **15**
Wood, RSM George **76**
wounded, treatment of the **24**, **62–4**, **76**

Ypres
  first battle of (1914) 8
  second battle of (1915) 10
  strategic importance 11

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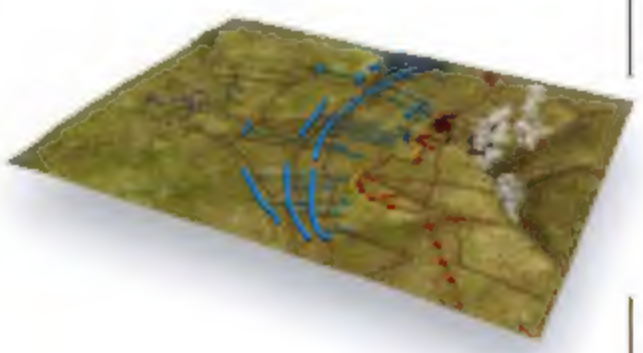

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The first day of the battle of the Somme, has always been perceived as a day of tragedy for the British Army, with the slaughter of 60,000 men on the battlefield. What was deemed to be poor planning on the part of the British command meant that soldiers were sent into no man's land to face the horrors of uncut barbed wire and waves of German machine gun fire. However, there were triumphs amongst the tragedy. This book discusses the successes and failures of the British and the German forces along the frontline. It also offers a detailed account of the battle itself, following the actions of individual units throughout the day.

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